Pig's Eye Dump Rail Yard Expansion

Revised Wetland Replacement and Flood Control Plan

Prepared for
Marathon Petroleum Company

December 2008

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Marathon Petroleum Company

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1.0 Introduction

On behalf of the Marathon Petroleum Company, LLC (Marathon), Barr Engineering Company is submitting a Wetland Replacement and Flood Control Plan in preparation for a proposed rail yard expansion project at the Pig's Eye site located east of Warner Road and the Mississippi River, west of Highway 61 and south of Interstate Highway 94. The project site is located in the southwest quarter of Section 3 and the southeast quarter of Section 4, Township 28, Range 22, City of St. Paul, Ramsey County, Minnesota as shown on Figure 1.

In order to manage the current and future railcar transportation into and out of the St. Paul Park refinery, Marathon has the need to develop a rail yard to meet a minimum storage capacity of 170 railcars. A feasibility study (Barr, 2005) was completed in November 2005, in which three locations for rail yard expansion were evaluated. Two locations were adjacent to the St. Paul Park refinery while the third was located off-site. The feasibility study recommended the off-site rail yard facility located at the Pig's Eye Site. The project site is owned by Canadian Pacific Railway (CP) which is expected to be leased to Marathon. An Environmnetal Assessment Worksheet (EAW) for this proposed facility will be submitted. In addition, a permit application for stormwater management will be submitted to the Ramsey-Washington Metro Watershed District (RWMWD) by TKDA on behalf of Marathon.

This Plan has been prepared in accordance with the requirements of the following rules and regulations:

- 1991 Wetland Conservation Act (WCA) as administered by the City of St. Paul,
- Section 404 of the Clean Water Act administered by the U.S. Army Corps of Engineers (Corps).
- Rule D – Flood Control as administered by RWMWD, and
- Rule E – Wetland Management as administered by the RWMWD.

The wetland boundaries within the project area were delineated on November 18, 2005, confirmed on May 5, 2006 (Barr, 2006), and verified by the regulatory agencies on April 24, 2008. This Plan includes background information describing the history of the site (Section 2.0), a description of the proposed project (Section 3.0), a discussion of alternatives to the proposed project (Section 4.0), a

description of the environmental setting (Section 5.0), descriptions of the delineated wetlands within the site (Section 6.0), a description of the wetland impacts due to the proposed project and a wetland mitigation plan (Section 7.0), and finally a flood control plan (Section 8.0).

A site location map is provided on Figure 1. The wetland delineations are shown on Figure 2. The National Wetland Inventory map data is provided on Figure 3. The MnDNR Public Waters and Wetlands map is provided on Figure 4. A map of the Ramsey County Soil Survey within the project area is provided in Figure 5. The project wetland impacts are shown on Figure 6. Figure 7 shows the RWMWD Rule E Buffer Widths surrounding the wetlands. A signed *Combined Project Application Form* has been completed for the project and is attached in Appendix A. An *Application for Withdrawal of Wetland Credits* is provided in Appendix B. The preliminary project construction plans and cross sections are provided in Appendix C. Historical aerial imagery of the site is provided in Appendix D. Wetland Data Forms for the delineated wetlands are included in Appendix E. Photographs of the delineated wetlands taken on-site are located in Appendix F. Appendix G contains summaries of wetland assessment results. Appendix H shows the areas of soil remediation and backfill within the project site. Appendix I contains a *Conditional Use Permit Application* for the City of St. Paul. Appendix J includes an *Application for Wetland Determination* for the City of St. Paul.

2.0 Project Need, Description, and Schedule

2.1 Project Need

In 2005, Marathon was faced with finding an alternate location for storage of their rail cars other than the storage yard that had previously been used. The alternate storage was determined to be necessary in order to maintain reliable delivery of rail cars to the plant at critical times to ensure continued operation of the plant and reliable delivery of petroleum products to the public. In addition, the alternative rail car storage was determined to be necessary to ensure the security of the product stored in the cars, particularly following the events of 9/11 and direction received from Homeland Security. Finally, consolidating rail car storage in one location where a comprehensive emergency response plan could be developed and implemented with nearby emergency responders was of critical importance.

Since mid 2005, CP has been managing Marathon's rail cars in various yards that operate across the metro area. This method of rail car storage is no longer acceptable for several reasons:

1. Rail cars are regularly stored in multiple areas that are not secured;
2. Multiple storage locations makes emergency response difficult, should it be needed;
3. The logistics of reliably delivering cars to the plant from multiple areas around the metro area has proven to be unacceptable in the long-term because there is a bottleneck within the rail system in the metro area that does not allow CP to reliably plan around to deliver rail cars to the plant when needed, thereby compromising Marathon's ability to ensure timely delivery of product to the public; and
4. CP has agreed to continue handling Marathon's rail cars as long as Marathon pursues a sustainable, long-term, and comprehensive solution.

2.2 Site Selection

Marathon conducted a feasibility study to evaluate new track construction in the following locations:

1. At the refinery,
2. In various areas outside of the metro area, and
3. At CP's Pig's Eye yard.

2.2.1 At the Refinery

The study determined that additional tracks could be constructed for storage of an additional 42 rail cars at the plant without impacting any of the surrounding residential areas within the Cities of Newport and St. Paul Park. That construction was completed in January, 2006.

2.2.2 Outside the Metro Area

However, Marathon still needed storage accommodations for an additional 170 rail cars (8.4 million gallons of petroleum storage capacity) to meet their peak storage needs during approximately two months of each year when the public demand for their products is the highest. The study of potential, available sites located outside of the metro area had several constraints that would not meet the project needs:

a. All of the sites were in areas for which providing security would be very difficult and local emergency response capabilities limited,

b. Not one site could be developed to handle the rail car capacity needed and multiple areas would have been needed rather than one consolidated storage yard;

c. The issue of rail car movement reliability through the metro area from a remote yard would not be addressed. CP Rail expressed considerable concern that they could not reliably deliver cars to Marathon from outside the metro area. Rail car delivery delays would lead to Marathon potentially having to lower refinery production rates thereby affecting the supply of refined product to the public in an unacceptable manner;

2.2.3 Pigs Eye Yard

The final location considered was the Pig's Eye site (currently owned by CP), which is located about six miles north of the refinery. The site is large enough to meet the minimum storage capacity need of 170 rail cars all in one location that can be fenced off to provide security. The site is adjacent to CP's current yard which provides the most efficient option for CP to service Marathon's needs reliably. The close proximity of the yard to not only the Marathon plant but the City of St. Paul Fire Department as well, will ensure the best emergency response possible, if ever needed. The proximity of the proposed yard to the existing CP yard and Marathon's Security department at the plant will enable closer security monitoring than any of the remote locations outside of the metro area.

2.3 Site Location and Description

The site encompasses approximately 18 acres within the designated 100-year flood plain of the Mississippi River. The 100-year flood elevation in this location is 706.3 feet above mean sea level (MSL). The surrounding area is primarily used for rail and barge transportation activities. The City of St. Paul also operates a demolition landfill and composting site in the area. Environmental remediation activities have been conducted at the site (MPCA VIC site VP7531). The remediation activities included partial removal of dump materials to a depth of approximately 4 to 6 feet within the proposed rail yard construction limits. The dump materials were replaced with a geotextile fabric overlain with clean compacted aggregate fill to an approximate elevation of 701 feet MSL, in accordance with an Agreement between the City of St. Paul and CP and a backfill plan approved by the MPCA (RETEC, 2005).

2.4 Project Plan Description and Schedule

The project consists of the construction of a new rail yard adjacent to the existing St. Paul Yard. Preliminary project construction plans are included in Appendix C. The proposed rail yard consists of access roads, modified site entrances, and the addition of approximately 3,000 feet of track length varying from 1 to 8 tracks in width to provide the capacity for storing 170 rail cars. The total project area is approximately 18 acres. Storm sewer, water main piping, fencing, and access roads are ancillary components of the project. Marathon has acquired the rights to development and use of the property through a long-term lease from CP.

Due to the current difficulties CP experiences in reliably handling Marathon's rail car storage and delivery, Marathon has committed to developing a comprehensive solution to provide a single, secure storage location near the plant as soon as possible. Therefore, Marathon is making every effort to complete planning and construction by the end of 2009. As a prudent business decision, Marathon determined that they would not begin equipment and materials acquisition for the project until all permits were approved. The limiting factor for completing construction in 2009 is ordering of certain pieces of rail equipment such as switches that have 6-9 month lead times. That equipment needs to be ordered in February, 2009 in order to ensure completion by the end of the year. Marathon plans to have all permits in hand by the end of January, 2009 so the equipment can be ordered and general earthwork can begin in April, 2009. Should these critical deadlines not be met, the project will be in danger of losing an entire year.

2.5 Adjoining Property Ownership

CP owns the property and operates a rail yard north of the proposed expansion site and expects to consider plans to add additional rail car storage immediately north of Marathon's proposed storage yard in the future. The City of St. Paul also operates a demolition landfill and composting site in the area. Pig's Eye Lake Road adjoins to the west. The Metropolitan Council's Pigs Eye Wastewater Treatment Plant is located to the southwest of this site.

3.0 Sequencing Analysis

Following is a discussion of alternatives and efforts to minimize wetland impacts in accordance with the sequencing requirements in M.R. 8420.0520. Two alternatives that avoid wetland impacts are considered and the reasons why they are not feasible and prudent are provided. In addition, the proposed alternative is presented along with a discussion of why it is the only feasible and prudent alternative.

3.1 No Build Alternative

The no build alternative was evaluated, and while it would not result in any wetland impacts, it is not a feasible or prudent option. Marathon needs a rail yard facility for storing at least 170 railcars. The no-build alternative would not meet Marathon's project goals. Due to these issues, the no build alternative was determined to not be feasible or prudent.

3.2 Wetland Avoidance Alternative – Alternate Site Location

Several existing railroad locations outside of the Metro area were evaluated for the new rail yard. These sites were ruled out because suitable connections could not be made with the existing rail system that would enable connection with the refinery. Alternative project sites are limited to areas with access to the CP main line, which affords access to the Marathon Refinery where the stored cars will originate from or be delivered to. A feasibility study compared the Pig's Eye site with a site at the Marathon refinery. Constructing the rail yard at the Refinery Site would avoid wetland impact; however, it would not provide sufficient railcar storage. The Refinery Site would develop a capacity for only 45 railcars. In comparison, the Pig's Eye Site would provide capacity for 170 railcars. In addition, developing the Refinery Site would require that the property be re-zoned in the northern portion within the City of Newport. The refinery property would need to be re-zoned from light industrial (I-1) to industrial storage (I-S). It is very likely that this zoning change would face opposition. Developing a rail yard facility at the Refinery Site would likely not impact wetlands; however, it would not meet the project storage capacity goals and would require rezoning, therefore, development of the Refinery Site was determined to not be feasible.

3.3 Bridge Alternative

Wetland A is located between the proposed rail yard expansion and the existing rail line. One alternative to avoid filling a portion of Wetland A for this connection is to construct a bridge over the wetland. While it is thought that a bridge would avoid fill in Wetland A, due to the existing rail

elevations and the required elevations of the proposed rail yard expansion, a bridge would not avoid fill in Wetland A. The thickness of a bridge from the top of rail to the bottom of the pier cap would be approximately 7.5 feet plus 2.0 feet for clearance/flow area, which would mean the bridge would be buried in the wetland, thus wetland fill could not be avoided.

In addition, a bridge would result in the following problems:

- Adding a bridge increases safety risks for workers as they are working on a structure.
- A bridge would unreasonably increase maintenance requirements.
- The bridge would be located on a curve and in a turnout/switch, which is not standard.

3.4 Single Track Wetland Crossing Minimization Alternative

One minimization alternative was considered, as shown in Appendix N, in which the crossing of Wetland A would be limited to 1 track width before branching out into the storage lines after crossing the wetland. This alternative would reduce wetland impacts by 0.21 acres of the 0.79 acres in the proposed plan. This minimization alternative is not feasible or prudent since it would not meet the project needs. The single track wetland crossing option would reduce the rail car storage capacity by 36 cars (21% storage reduction), which would not meet the project needs. Additional tracks cannot be added to the south due to the environmental berm and other property ownership. Additional track storage cannot be added to the north due to the future plans by CP and the lease agreement between CP and Marathon. Therefore, the single track wetland crossing alternative is not practicable.

3.5 Proposed Alternative

The proposed alternative described in Section 2.0 is the only feasible and prudent alternative to achieve Marathon's project goals. The proposed alternative minimizes regulated wetland impacts to the greatest extent practicable.

Preliminary plans for the proposed rail yard have been prepared by TKDA and are included in Appendix C. The preliminary plans have been developed to minimize wetland impacts given the various location constraints. Figure 6 shows the associated wetland impacts. While the proposed rail yard avoids impacts to the majority of Wetland A, a portion of fill in Wetland A is required to provide a connection from the existing rail line to the proposed rail yard. The existing rail line is fixed and the proposed connection near Wetland A was selected to eliminate impacts to Battle Creek.

A culvert is proposed across the wetland fill section to maintain the hydrologic connection within Wetland A. The culvert is proposed to be installed at the existing ground surface elevation under the tracks. The proposed rail yard is constrained to the south by an environmental berm (Figure 2). The proposed rail yard is designed to limit wetland impacts as much as possible while meeting the project railcar capacity requirements and maintaining the necessary horizontal curvatures. The turnouts have been located as far west as possible so that the track narrows at the east end to limit the amount of wetland impact (see Appendix C, Figure 2). Portions of the infiltration basin/drainage ditch (Wetland B) would require fill; however, this is not a natural wetland and is exempt from the WCA since it is an incidental impoundment constructed solely for the purpose of storm water retention. Due to railway connections, alignment constraints, the environmental berm to the south, and Battle Creek to the east, the proposed plan is the only practicable alignment for the location of the proposed rail yard.

4.0 General Environmental Setting

4.1 Soils

The Ramsey County Soil Survey (Figure 4) maps the evaluation area as udorthents, wet substratum. Udorthents, wet substratum are areas of disturbed soils where the upper soil material has been removed, filled or graded. They are moderately well drained, gravelly and sandy soil areas located within areas of glacial fluvial deposits.

4.2 Upland Vegetation

The majority of the site surrounding the delineated wetlands consists of existing rail lines, buildings, a dump and composting site, roads, parking lots, and recently graded soil surfaces. The vegetation in the upland portions of the site consists of spotted knapweed (*Centaurea biebersteinii*), birdsfoot trefoil (*Lotus corniculatus*), reed canary grass (*Phalaris arundinacea*), Canadian thistle (*Cirsium arvense*), catnip (*Nepeta cataria*), cottonwood (*Populus deltoides*), aster (*Aster spp*.), goldenrod (*Solidago spp*.), dandelion (*Taraxacum officinale*), and brome grass (*Bromus inermis*).

4.3 Surface Water Drainage

Stormwater on the western portion of the site drains into Wetland B and evaporates or infiltrates after rainfall events. During extreme rainfall events, runoff will overflow to the eastern portion of the site. Wetland A receives overland flow in the eastern portion of the site and discharges into Battle Creek through a 15-inch culvert (Appendix C).

Battle Creek flows westward from the RWMWD Drainage Area C-72 under Highway 61 into RWMWD Drainage Area STP-00 and continues northwest along the railroad tracks where it combines with discharge from Little Pig's Eye Lake (MNDNR Protected Water 62-234 W). The creek flows to the south/southwest across the railroad tracks where Wetland A discharges into Battle Creek. The creek continues to flow south/southeast through the site and into Pigs Eye Lake (MNDNR Protected Water 62-4 P, Figure 5).

Additional watershed conditions and proposed stormwater management plans are described in the permit application for stormwater management and erosion and sediment control submitted to RWMWD on March 12, 2008.

5.0 Wetland Delineation

5.1 Wetland Delineation and Classification Methods

The wetlands within the defined study area were identified and delineated during site visits on November 18, 2005 and May 5, 2006.

The wetland delineations were established according to the Routine On-Site Determination Method specified in the 1987 Corps of Ea ngineers Wetland Delineation Manual. The wetland boundaries were delineated with pin flags that were numbered and placed at intervals of approximately 20 to 50 feet. The wetland boundaries were surveyed for horizontal control using a Global Positioning System with sub-meter accuracy.

The National Wetland Inventory map is provided in Figure 3. Information on soil types within the evaluation area was obtained from the Soil Conservation Service (SCS) Soil Survey for Ramsey County (Figure 4). Numerous shallow soil borings were placed in and around the wetlands, to a depth of at least 18 inches below the ground surface whenever possible. Representative soil samples from each boring were examined for hydric soil indicators. Soil colors (e.g., 7.5YR 4/2, etc.) were determined with the aid of a Munsell® soil color chart and noted on the Wetland Data Forms (Appendix E). The hydrologic conditions were evaluated at each soil boring and are also noted on the Wetland Data Forms.

The delineated wetlands (Figure 2) were classified using the U.S. Fish and Wildlife Service Circular 39 Wetland Classification System (Types 1, 2, 3, etc.), the U.S. Fish and Wildlife Service Cowardin Wetland Classification System (PEMB, PSSC, PFOB, etc.), and the Eggers and Reed Community types. The dominant plant species in each wetland were identified, and the corresponding wetland indicator status of each plant species was determined and noted on the Wetland Data Forms. Photographs of each wetland are provided in Appendix F. A summary of the wetland classifications and wetland areas are provided in Table 1.

5.2 Aerial Photograph Interpretations 1937- 2006

The 1937 through 1953 aerial photographs show the evaluation area as partially natural wetland and partially a dump (Appendix D). In 1966, the majority of the project area is disturbed by what appears to be the dump and the general shape of Wetland A is evident. Battle Creek appears to have been straightened through the eastern portion of the site as well as south of the evaluation area as evidenced in the 1980 photograph. The historical aerial photos from 1937 through 1980 show that

Wetland B is a recently added feature that did not exist previously. It appears that Wetland B developed after 2000 and before 2002. Significant development to the north of the evaluation area is evident by 1991. The 1997 imagery captures the inundation from the severe flood conditions. The 2000 imagery shows the environmental berm construction as part of the remediation of the site as approved by the MPCA. The photographs dating back to 1937 show evidence of some wetlands within the evaluation area throughout this time; however, it is not until the environmental berm construction and the preparation for the new building construction in 2000 that the wetlands take on their currently defined shape. Earthwork to the south of Wetland A is shown in the 2004 photograph. Evidence of inundation within most of the delineated wetlands is shown in photographs from 1997, 2000, 2002, 2003, and 2004.

5.3 Wetland Descriptions

- **Wetland A** is a 6.05 acre Type 2/3/1 (PEMB/C/FOA) wet meadow/shallow marsh/floodplain forest, located along the northeastern portion of the evaluation area (Figure 2). This wetland receives stormwater runoff from railroad tracks to the north, parking lots to the north and west, and the environmental berm and vacant covered dump area from the south. The wetland discharges to the east into Battle Creek.

  The dominant vegetation found in the wetland during the site visit includes cattails (*Typha sp.*), reed canary grass, boxelder (*Acer negundo*), sandbar willow (*Salix exigua*), black willow (*Salix nigra*), and cottonwood. Other species present in the wetland include stinging nettle (*Urtica dioica*), river bulrush (*Scirpus fluviatilis*), blue vervain (*Verbena hastata*), Canadian thistle, red stem aster (*Aster puniceus*), and bottlebrush sedge (*Carex comosa*).

  The typical soil profile in the wetland consists of 6 inches of black (10YR2/1) sandy muck, above 6 inches of brown (10YR5/3) sand with gravel and common yellowish red (5YR4/6) mottles. The underlying 19 inches consists of very dark gray (10YR3/1) mucky clay with common large prominent brownish yellow concentrations. Ten percent of the soil at this depth is black (10YR2/1) and 5 percent has gray (10YR5/1) depletions. The soil was saturated in the upper 12 inches along the wet meadow fringe and the wetland was inundated with as much as two feet of water during the November 2005 site visit.

- **Wetland B** is a 0.29 acre Type 3/2 (PEMC/B) incidental, man-made stormwater management basin/drainage ditch, which is located in the northwestern portion of the evaluation area (Figure 2). The wetland receives stormwater from surrounding roads, railroads, rail yard storage area, and parking lots. The southeast end of the wetland consists of a ditch, which receives stormwater

from the adjacent rail yard storage area. The wetland appears to act as an infiltration basin, as no outlet was found during the site visit. This man made drainage ditch does not have historical significance. The area was previously filled and has been graded for drainage purposes. Therefore, the wetland is considered to be incidental.

The dominant vegetation found in the wetland appears to be smartweed (*Polygonum sp.*). At the time of the site visit in November, vegetation was frost damaged and additional species were not identified.

The soil profile within the wetland consists of 16 inches of very dark gray (10YR3/1) sand (sediment) with muck above at least 4 inches of black (10YR2/1) clayey sand (sediment). The wetland was saturated within the upper 16 inches and contained pockets of ice up to ½ inch thick during the November site visit. The surface soil was cracked from previous inundation and drainage patterns were evident.

- **Wetland C** is a 0.13 acre Type 2/3 (PEMB/C) wet meadow/shallow marsh wetland located southeast of Wetland A (Figure 2). This incidental wetland is a narrow ditch which does not appear to have historical significance. It appears to have been formed during recent construction of berms on both the east and west sides. Overflow from the wetland discharges into Wetland A.

  Reed canary grass is the dominant vegetation within this wetland. Additional species include blue vervain, goldenrod, smartweed, and common reed (*Phragmites australis*).

  The typical soil profile within the wetland consists of 16 inches of dark grayish brown (10YR4/2) silty sand with yellowish brown (10YR5/6) mottles over at least 16 inches of dark gray (10YR4/1) silty sand. The wetland was not inundated at the time of the site visit; however, the soil was moist at the surface and saturated within the upper 16 inches. Drainage patterns were also evident in the wetland.

- **Wetland D** is a 0.04 acre Type 2 (PEMB) wet meadow drainage ditch at the far eastern portion of the evaluation area, and extends to the east outside of the evaluation area (Figure 2). This incidental ditch receives stormwater from the bordering railroad tracks to the north and upland berm to the south where it eventually discharges into Pigs Eye Lake. Pigs Eye Lake is listed as a Protected Water (62-4 P) by the MNDNR (Figure 5). The portion of this ditch which was delineated for this project is the far western edge of the ditch. The majority of the ditch is located east of the evaluation area.

The dominant vegetation found in the wetland includes reed canary grass, bottlebrush sedge, aster, goldenrod, and common reed.

The typical soil profile within the wetland consists of 12 inches of very dark grayish brown (10YR3/2) sandy muck with some very dark gray (10YR3/1) mottles and common dark yellowish brown (10YR4/6) concentrations. A soil profile below this layer was unattainable at the time of the site visit due to frozen soil conditions. The soil was not saturated in the upper 12 inches and there was no inundation during the November 2005 site visit, drainage patterns in the wetland showed evidence of water flowing to the east. This wetland continues to the east beyond the evaluation area.

- **Battle Creek** – The portion of Battle Creek which lies within the evaluation area was delineated at the time of the site visit. This 0.40 acre portion of Battle Creek is a Type 3/90 (PEMF/RUBG) shallow marsh/riverine system located in the eastern portion of the evaluation area (Figure 2). A rail bridge is located at the north end of the delineated area. Water from Little Pig's Eye (MNDNR Protected Water 62-234 W, Figure 5) discharges into Battle Creek. The water flows under this rail bridge and continues to the south. Wetland A discharges into Battle Creek through a culvert immediately southwest of the rail bridge. Battle Creek eventually flows into Pig's Eye Lake south of the evaluation area.

  The portion of Battle Creek within the evaluation area has an unconsolidated sandy bottom with reed canary grass, river bulrush, smartweed, and blue vervain along the sides.

  Soils within the creek are very dark gray (10YR3/1) sandy muck. The creek was inundated with as much as 6 inches of water at the time of the site visit and sedimentation drainage patterns were evident.

6.0 Wetland Impacts and Mitigation

6.1 Wetland Impacts

The proposed rail yard (Appendix C) would result in 0.85 acres of unavoidable wetland impacts, in which 0.79 acres are jurisdictional (Table 1). Wetland impacts, based on the proposed project plan include:

- Fill in Wetland A to allow for the proposed rail yard connection to the existing rail line. As described in Section 4.4, the options for rail alignment are extremely limited by boundary constraints, alignment curvatures, rail car storage requirements, and the need for balancing flood storage on-site; allowing no avoidance alternative. The area where the proposed rail yard and roadway would impact Wetland A includes 0.12 ac. of Type 1 (floodplain forest), 0.19 ac. of Type 2 (wet meadow), and 0.48 ac. of Type 3 (shallow marsh) wetland fill totaling 0.79 acres within Wetland A.

- Fill in Wetland B to allow for the connection from existing track to the proposed rail line expansion. The impact on Wetland B includes 0.05 ac. of fill in Type 3 (shallow marsh) wetland at the north end and 0.01 ac. of fill in Type 2 (wet meadow) wetland along the ditch at the south end. This stormwater pond/drainage ditch is exempt from the WCA since it is an incidental impoundment constructed solely for the purpose of storm water retention. Historical imagery from 1937 through 2000 indicates that this is not a natural wetland basin (Appendix D). In preparation for the remediation work in 2006, the City of St. Paul concurred that this stormwater pond qualifies for an incidental exemption. Stormwater management for the rail yard project is proposed to be compensated in the ditches proposed alongside the north and south sides of the rail alignment according to the stormwater management permit application submitted to the RWMWD on March 12, 2008.

6.2 Wetland Mitigation

Wetland mitigation planning was conducted in accordance with the WCA replacement siting rules and guidelines from Section 404 of the Clean Water Act. Wetland Conservation Act wetland replacement siting, M.R. 8420.0543 describe the priorities that must be evaluated for siting wetland replacement as follows:

1. On-site or in the same minor watershed as the affected wetland,

2. In the same watershed as the affected wetland,

3. In the same county as the affected wetland,

4. For replacement by wetland banking, in the same wetland bank service area as the impacted wetland and within an area containing less than 50 percent of historic wetland resources,

5. Finally, within an adjacent watershed for project specific replacement or within an adjacent bank service area for replacement by wetland banking.

An overriding set of priority siting locations takes precedent in the seven-county metropolitan area (M.R. 8420.0543 A.8):

1. In the affected county

2. In another of the seven metropolitan counties, or

3. In one of the major watersheds that are wholly or partially within the seven-county metropolitan area, but at least one-to-one must be replaced within the seven-county metropolitan area.

The wetland replacement siting guidelines continue to describe the conditions that allow pursuit of opportunities at the next siting level (M.R. 8420.0543 D and E):

D. When reasonable, practicable, and environmentally beneficial replacement opportunities are not available in siting priorities listed in M.R. 8420.0543 A, the applicant may seek opportunities at the next level.

E. For the purposes of item D, "reasonable, practicable, and environmentally beneficial replacement opportunities: mean opportunities that:

(1) take advantage of naturally occurring hydrogeomorphological conditions and require minimal landscape alteration;

(2) have a high likelihood of becoming functional wetland that will continue in perpetuity;

(3) do not adversely affect other habitat types or ecological communities that are important in maintaining biological diversity of the area; and

(4) are available and capable of being done after taking into consideration cost, existing technology, and logistics consistent with the overall project purposes.

6.2.1 On-Site or Minor Watershed Mitigation

The first consideration for wetland replacement was on-site within the project area. Areas of the site considered for wetland mitigation include:

- The area located west of the proposed rail car storage,
- The area located north of the proposed rails, and
- The area south and east of Wetland A, adjacent to Wetland C and Battle Creek (Appendix J).

There are three primary constraints that render on-site mitigation not feasible, prudent, or environmentally beneficial:

1. None of the project areas are available for wetland replacement as they are not owned by Marathon and therefore, not under their control to allow wetland replacement activities;
2. All areas of the project property would require significant landscape alteration to create wetlands;
3. None of the project areas are suitable for the development of functional wetlands that will continue in perpetuity. All areas of the site considered for wetland replacement had dump materials removed and were backfilled with non-native soils to isolate the remaining dump materials from human exposure and groundwater. The existing project site is a Voluntary Investigation and Clean-up (VIC) brown field site that was previously a City dump. Remediation efforts conducted in the past by CP Rail and the City of St. Paul resulted in the removal of the top 4 feet of dump material. However, there is still remaining dump material below this remediated area. Pre-design stormwater discussions with the Minnesota Pollution Control Agency (MPCA) VIC Department concluded that it is advantageous not to have areas in the dump footprint that would hold water and subsequently percolate into the dump material and potentially impact groundwater and/or downstream surface waters such as Battle Creek and the Mississippi River. Thus, the proposed stormwater management for the project was designed to drain surface water off of the site with proper erosion controls. Any attempts to create wetlands on-site would be contrary to the MPCA directive to avoid holding water on the surface such that it could percolate into the dump materials.

Therefore, in accordance with wetland replacement siting rules (M.R. 8420.0543), on-site mitigation was deemed not practicable for the three reasons described above. There are no available wetland replacement opportunities in the Mississippi River minor watershed #20088. Inquiries were made with Tina Carstens of the Ramsey-Washington Metro Watershed District regarding their knowledge of any wetland replacement opportunities within that watershed. She was not aware of any opportunities in the watershed other than those listed in the BWSR wetland bank. No wetland bank accounts are listed within the minor watershed.

6.2.2 Major Watershed and Ramsey County

The next two levels of consideration for wetland replacement siting are overlapping, including the same major watershed (Mississippi River- Metro #20) as the affected wetland and Ramsey County. The only wetland banking opportunity within Ramsey County is a wetland bank account that contains only public value credits (PVC).

During the pre-application meeting for this project in April, 2008, all parties were aware of Marathon's interest in wetland mitigation opportunities within the watershed, the city and the county. Several possible project-specific wetland replacement opportunities have been evaluated within the City of St. Paul and in Ramsey County. Marathon and the Technical Evaluation Panel met with the City of St. Paul Parks Department to discuss potential opportunities associated with St. Paul Parks. Two potential wetland replacement opportunities were identified by St. Paul Parks in their comprehensive planning efforts; Trillium and Willow Reserve (near Como Lake). However, both projects are in the conceptual stage of development so there will be approximately 2-4 years of design, infrastructure modifications and clean up before they would be ready for wetland development. Therefore, those projects would not be practicable given the critical schedule for the Marathon project.

One additional project within the City of St. Paul was discussed that is not affiliated with the Parks Department. Apparently, there is a project currently under construction south of the Holman Field St. Paul Airport involving public waters impacts and mitigation. It was suggested that Marathon could possibly just add on to the mitigation taking place associated with that project. Given the stage of that project (already under construction), it is not feasible to attempt to ask a project developer to change plans mid-construction to accommodate the planning of additional wetland mitigation for an independent company that may be at odds with the current project goals. In addition, the project is not available and is logistically inconsistent with purpose and goal of the Marathon project.

Therefore, that project was determined to not be feasible or prudent in accordance with the WCA guidelines outlined in Section 2.2.

Tom Peterson, Ramsey Conservation District, talked to the Ramsey County Parks Department and Ramsey County. The parks department was not aware of any project specific wetland replacement opportunities at this time. While Ramsey County has a wetland bank account that is either fully certified or close to being certified, the County is holding the credits for their own use.

A search was conducted of the BWSR listing of available banking credits. No banked credits are available within the City of St. Paul and only one account is available in Ramsey County. The single wetland bank account in Ramsey County is #1138 and contains only upland public value credits. The owner has agreed to sell credits to Marathon for this project, the details of which are described below.

There are only two wetland bank accounts with credits available in the same major watershed; however, the available credits are not in-kind. Both accounts are located in Hennepin County and contain Type 3 (#1412 containing 0.37 acres and #1346 containing 0.74 acres) and Type 5 (#1412 containing 1.23 acres and #1346 containing 2.46 acres) new wetland credits (NWC) along with public value credits. Marathon proposes to fulfill the wetland mitigation requirements through the purchase of 0.74 acres of Type 3 NWC and 0.05 acres of Type 5 NWC from bank account #1346. Therefore, 0.48 acres of impact will be replaced in-kind at a 2:1ratio (0.96 acres) and the remaining 0.31 acres of impact will be replaced at a 2.25:1 ratio (0.70 acres) for a total of 1.66 acres. For the required mitigation over the 1:1 NWCs provided, a total of 0.87 acres of PVC will be purchased from account #1138 in Ramsey County. Draft Application for Withdrawal of Wetland Bank Credit forms are included in Appendix B. Table 1 summarizes the plan for wetland mitigation.

7.0 RWMWD Rule D: Flood Control Plan

All earthwork will be conducted above the ordinary high water level (e.g., 693 feet MSL) and below the 100-year floodplain (e.g., 706.3 feet MSL). Rule D of the RWMWD's rules states that placement of fill within the 100-yr floodplain is prohibited unless compensatory storage is provided. Therefore, one criterion is that compensatory storage must be provided on the development or immediately adjacent to the development within the affected floodplain. Compensatory flood plain storage will be provided onsite by the proposed rail yard to fully offset the fill associated with this project. Net cut/fill calculations are detailed in the TKDA memorandum submitted to the RWMWD on July 18, 2008 (Appendix G) and show a slight excess of cut. Earthwork summary drawings are also provided in Appendix G. Cut will consist of existing clean cover soil and dump materials. All excavated dump materials will be removed for offsite disposal in accordance with an MPCA approved site development plan. Clean excess soil will be used to replace excavated dump materials and to provide a buffer between the dump materials and the final grade.

Supporting documentation has been provided in correspondence with the RWMWD – see Appendix G.

8.0 RWMWD Rule E: Wetland Management

The City of St. Paul administers the WCA for this site; however, certain wetland buffer and water quality criteria adopted in the RWMWD Wetland Management Rule E, are applicable whether or not the RWMWD is the WCA local government unit.

One criterion is that all stormwater must be treated to the water quality standard outlined in Rule C before discharge to a wetland. This criterion has been addressed in the RWMWD permit application submitted on March 12, 2008.

Another RWMWD criterion requires that buffers shall be established for all developments adjacent to a wetland. The width of the buffer is determined by the wetland management classification. The wetlands on this site currently are not assigned to a management classification. Management classifications are determined by conducting a wetland functional assessment using the Minnesota Routine Assessment Method for Evaluating Wetland Functions Version 3.1 (MNRAM). The MNRAM was not completed on this site during the RWMWD wetland assessment project due to lack of access at the time of that project. However, as part of this wetland delineation/wetland replacement plan application process, Barr has completed the wetland functional assessments using the MNRAM for all of the delineated wetland areas on this site. The results of the MNRAM assessments show that the functional ratings are low to moderate for all wetlands at the site. Functional assessment and vegetation community summaries are provided in Appendix H. Based on the MNRAM, the management classifications and corresponding RWMWD buffer requirements were determined as shown in Table 2.

Wetland A would require an average 25 ft. buffer with a minimum of 12.5 ft. surrounding the wetland. Given the existing conditions on this industrial site, there is limited potential for establishing a buffer around this wetland. The existing rail yard and access road to the north are immediately adjacent to the wetland. There is a parking lot with steep slopes and rip rap surrounding an electrical structure on the west side. The southern boundary is limited by the dump materials and contains compacted aggregate fill, which would likely not support native buffer vegetation. Figure 7 shows that the buffer requirements are not feasible due to the current boundary constraints on the site. Therefore, a variance of the buffer requirement is requested for this project.

9.0 References

Barr Engineering Co. May 2006. *Proposed Rail Yard Expansion Pig's Eye Site Wetland Delineation Report,* Prepared for Marathon Petroleum Company.

Barr Engineering Co. November 2005. *Rail Yard Expansion Feasibility Study St. Paul Park Refinery,* prepared for Marathon Petroleum Company, LLC, St. Paul Park, Minnesota.

RETEC, September 2005. *Backfill Environmental Sampling Plan for Pigs Eye Dump Area Located on Canadian Pacific Property,* prepared for Canadian Pacific Rail, Minnesota.

TKDA. March 2008. *Stormwater Management, Erosion, and Sediment Control Permit Application,* Prepared for Marathon Petroleum Company and submitted to Ramsey-Washington Metro Watershed District, March 12, 2008.

TKDA. July 2008. *RWMWD Permit Application Saint Paul Rail Yard,* Memorandum prepared for Marathon Petroleum Company and submitted to Ramsey-Washington Metro Watershed District, July 18, 2008.

United States Army Corps of Engineers. 1987. *U.S. Army Corps of Engineers Wetlands Delineation Manual* (1987 Edition).

Tables

Table 1
Wetland Delineation, Impact, and Replacement Summary
Revised December 22, 2008

Wetland Identification	Circular 39 Type [1]	Cowardin Classification [2]	Eggers and Reed[3] Wetland Type Within Alteration Area/ Predominant Vegetation	Delineated Wetland Area (acres)	Wetland Impact Area (acres)	Replacement Ratio	Replacement Credits Required (acres)
Wetland A	Type 1	PFOA	Floodplain Forest / boxelder, willow, and cottonwood	6.05	0.12	2.25:1	0.27
Wetland A	Type 2	PEMB	Wet Meadow / reed canary grass		0.19	2.25:1	0.42
Wetland A	Type 3	PEMC	Shallow Marsh / hybrid cattail, narrowleaf cattail		0.48	2:1	0.96
Wetland B	Type 2	PEMB	Stormwater Pond / Drainage Ditch/smartweed	0.29	0.006[4]	exempt	exempt
Wetland B	Type 3	PEMC	Stormwater Pond / Drainage Ditch/bare soil		0.05[4]	exempt	exempt
Wetland C	Type 2	PEMB	Wet Meadow / reed canary grass	0.13	none	none	none
Wetland C	Type 3	PEMC	Shallow Marsh / common reed		none	none	none
Wetland D	Type 2	PEMB	Wet Meadow / reed canary grass	0.04	none	none	none
Battle Creek	Type 3	PEMF	Shallow Marsh / reed canary grass, river bulrush	0.40	none	none	none
Battle Creek	Type 90	RUBG	Riverine System / Unconsolidated Bottom		none	none	none
Total				**6.92**	**0.79**		**1.66**

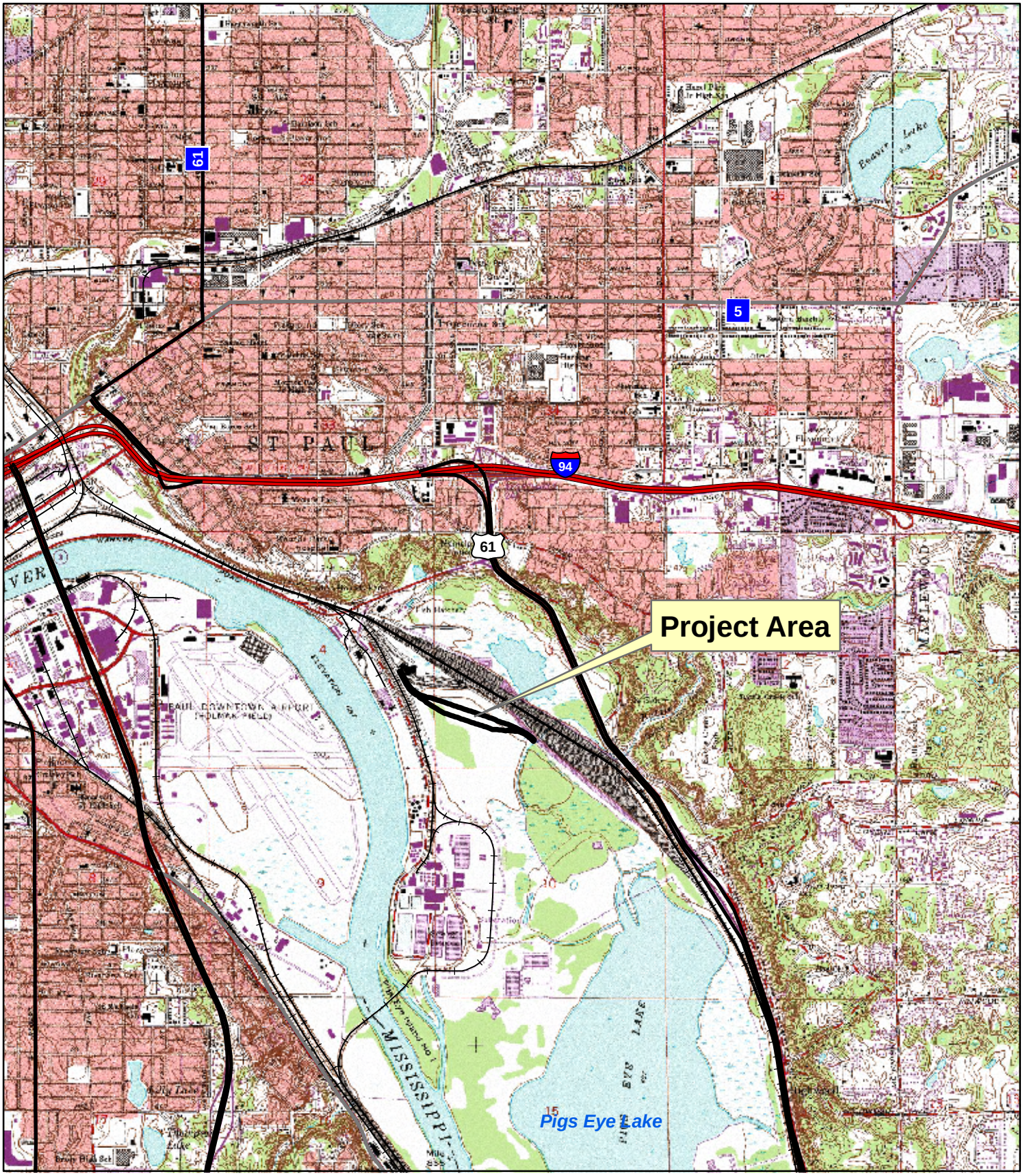
[1] U.S. Fish and Wildlife Service, Circular 39 Classification System
[2] U.S. Fish and Wildlife Service, Cowardin Classification System
[3] *Wetland Plants and Plant Communities of Minnesota and Wisconsin* (Eggers and Reed, 1997)
[4] Exempt wetland impacts not included in total

Table 2
MNRAM Identification, Management Classification, and Buffer Widths

Wetland ID	MNRAM ID	Management Classification	Vegetated Wetland Buffer Widths	
			Average Buffer Width	Minimum Buffer Width
Wetland A	62-028-22-03-001-A	C-Manage 2	25	12.5
Wetland B *	62-028-22-04-001-S	C-Manage 2	25	12.5
Wetland C	62-028-22-03-002-A	C-Manage 2	25	12.5
Wetland D	62-028-22-03-003-A	C-Manage 2	25	12.5
Battle Creek	62-028-22-03-004-A	B-Manage 1	50	25

* Wetland B is a stormwater pond and therefore, would only require a 10 ft. buffer from the normal water level.

Figures



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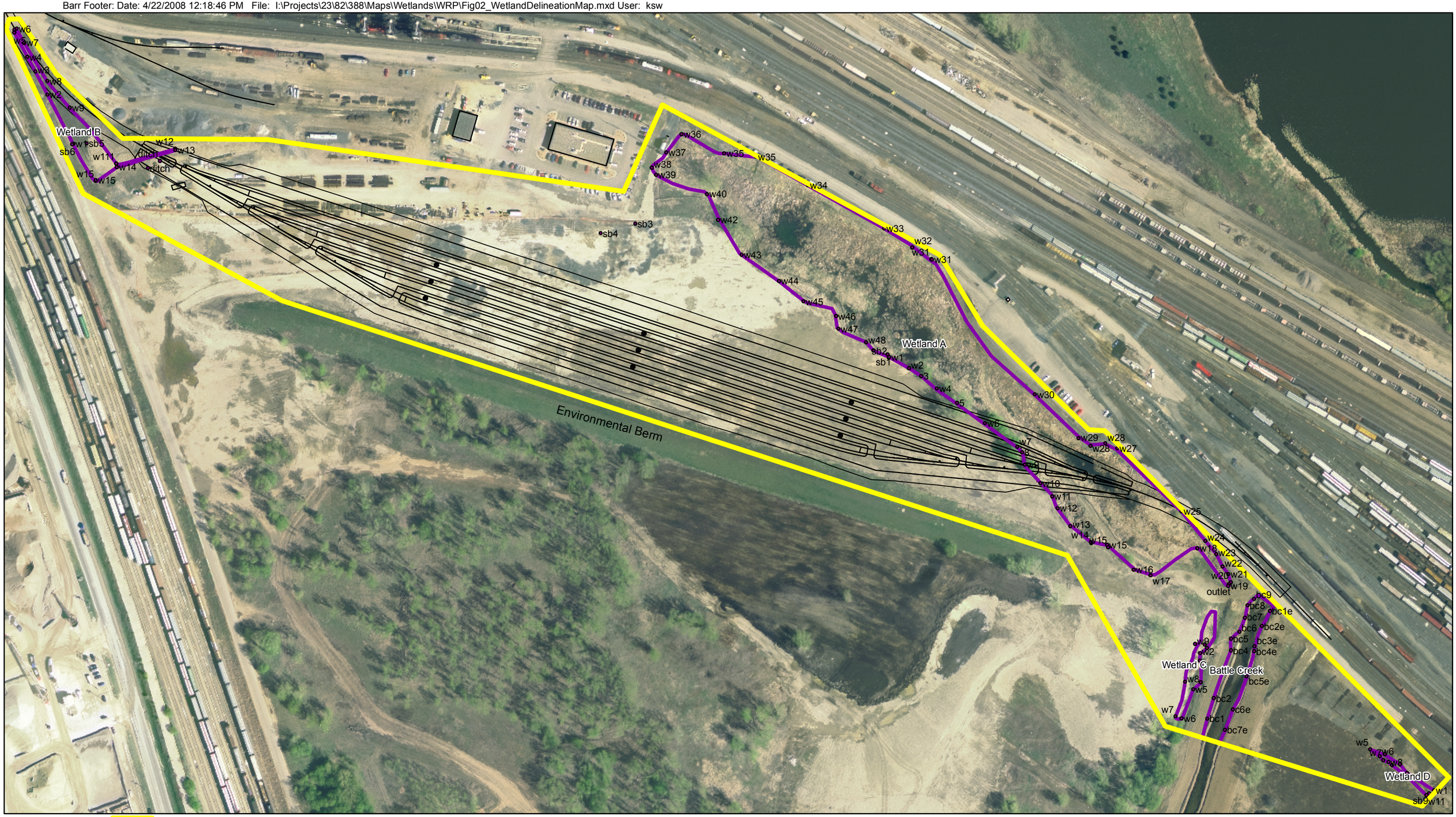
3,000 1,500 0 3,000

Feet

Figure 1

SITE LOCATION MAP
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/22/2008 12:18:46 PM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\Fig02_WetlandDelineationMap.mxd User: ksw



Wetland Evaluation Area

Wetland Delineation GPS Points

Wetland Delineation

Proposed Trackbase

April 2004 USGS Aerial Photography

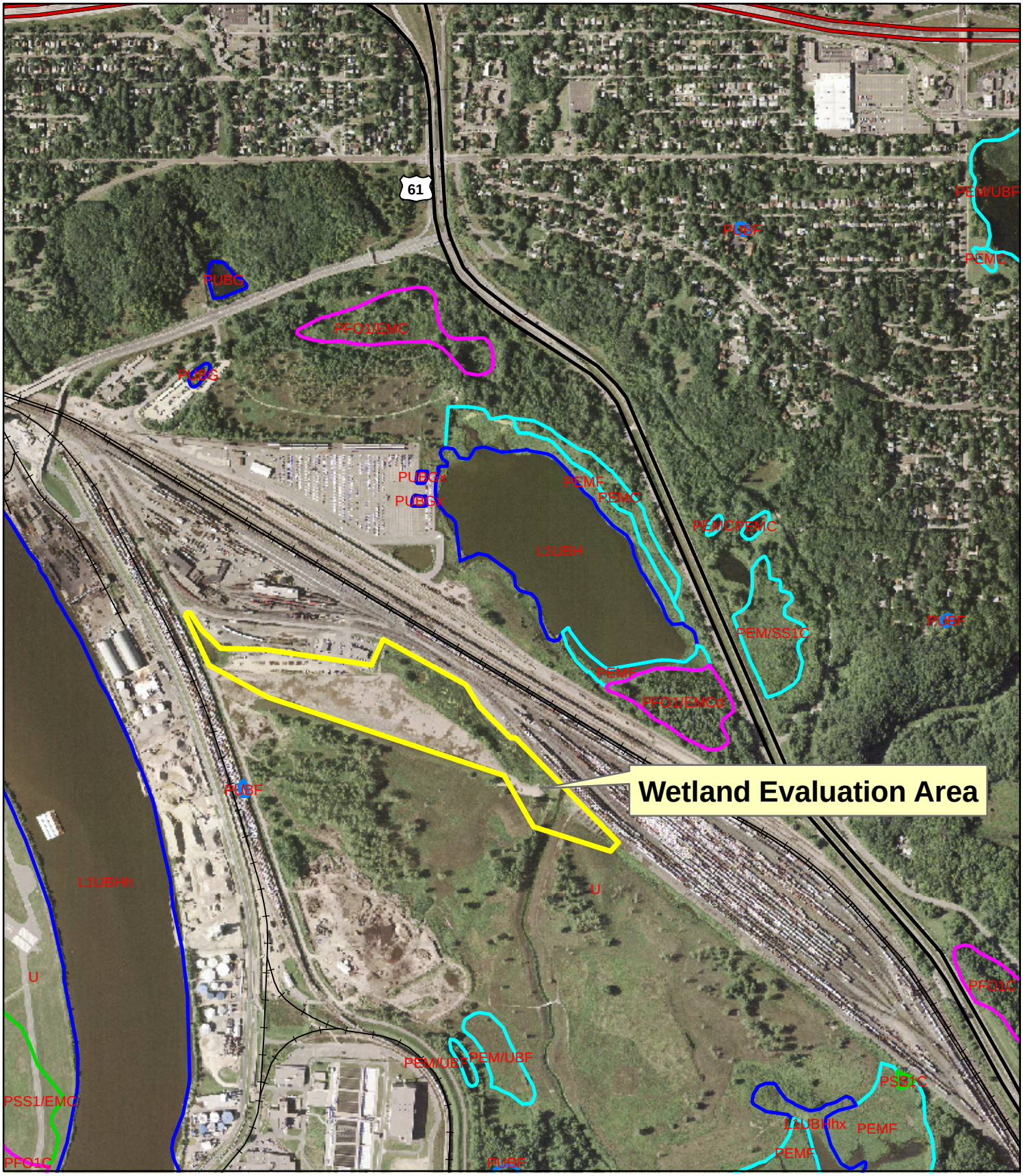
0 100 200 400

Feet

N

Figure 2

WETLAND DELINEATION MAP
PROPOSED INDUSTRIAL RAILYARD
Pig's Eye Site
St. Paul, Minnesota



Barr Footer: Date: 4/17/2008 9:05:33 AM File: i:\Projects\23\82\388\Maps\Wetlands\WRP\Fig03_NWI.mxd User: ksw

National Wetland Inventory

- Railroad
- Evaluation Area
- Type 1 - temporary
- Type 2 - wet meadow
- Type 3 - shallow marsh
- Type 4 - deep marsh
- Type 5 - open water
- Type 6 - shrub scrub
- Type 7 - forested
- Type 8 - bog

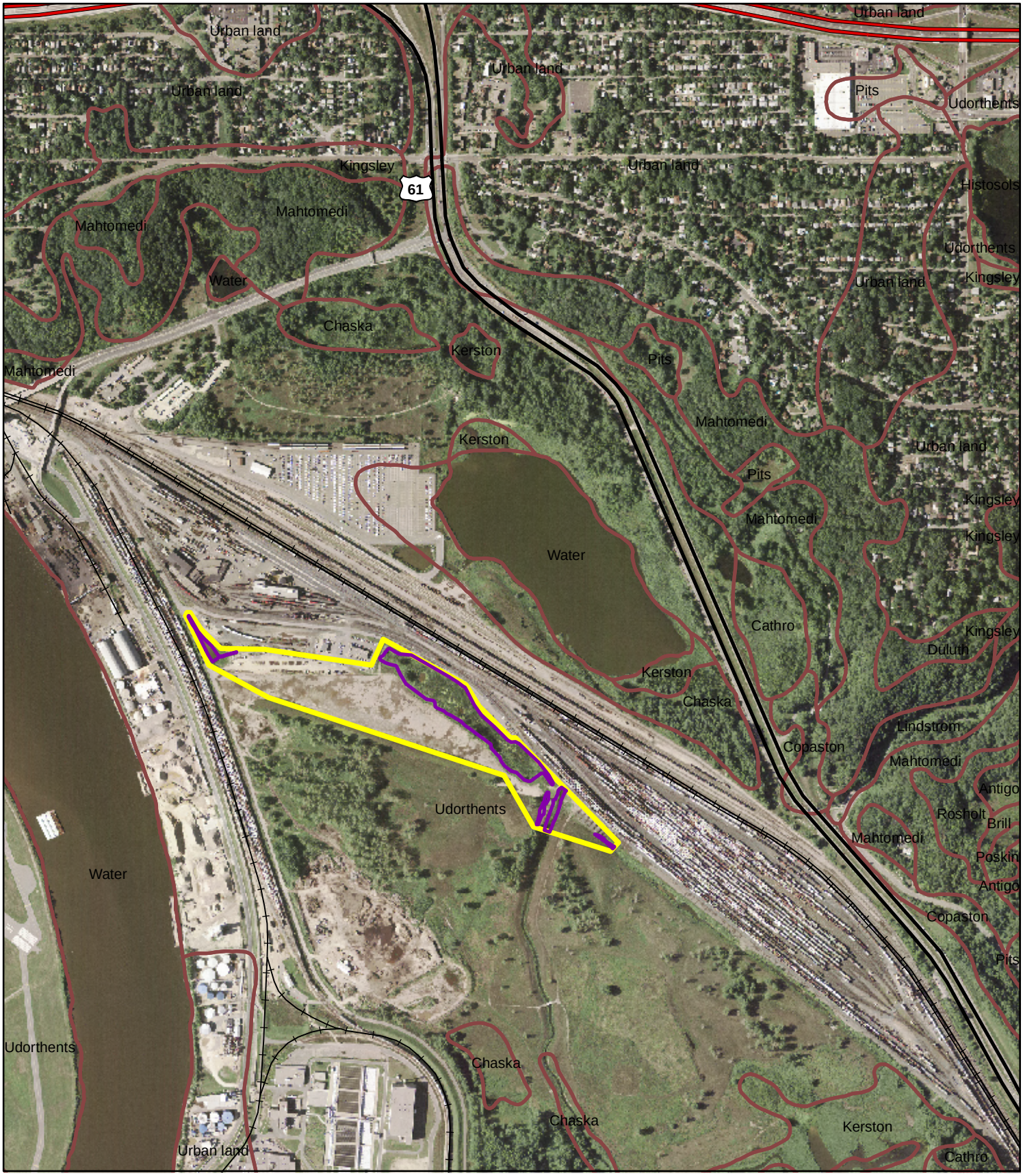
2006 Aerial Imagery

1,000 500 0 1,000

Feet

Figure 3

NATIONAL WETLAND INVENTORY
Pig's Eye Site
St. Paul, Minnesota



Barr Footer: Date: 4/17/2008 11:25:26 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\Fig04_Soils.mxd User: ksw

2006 Aerial Imagery

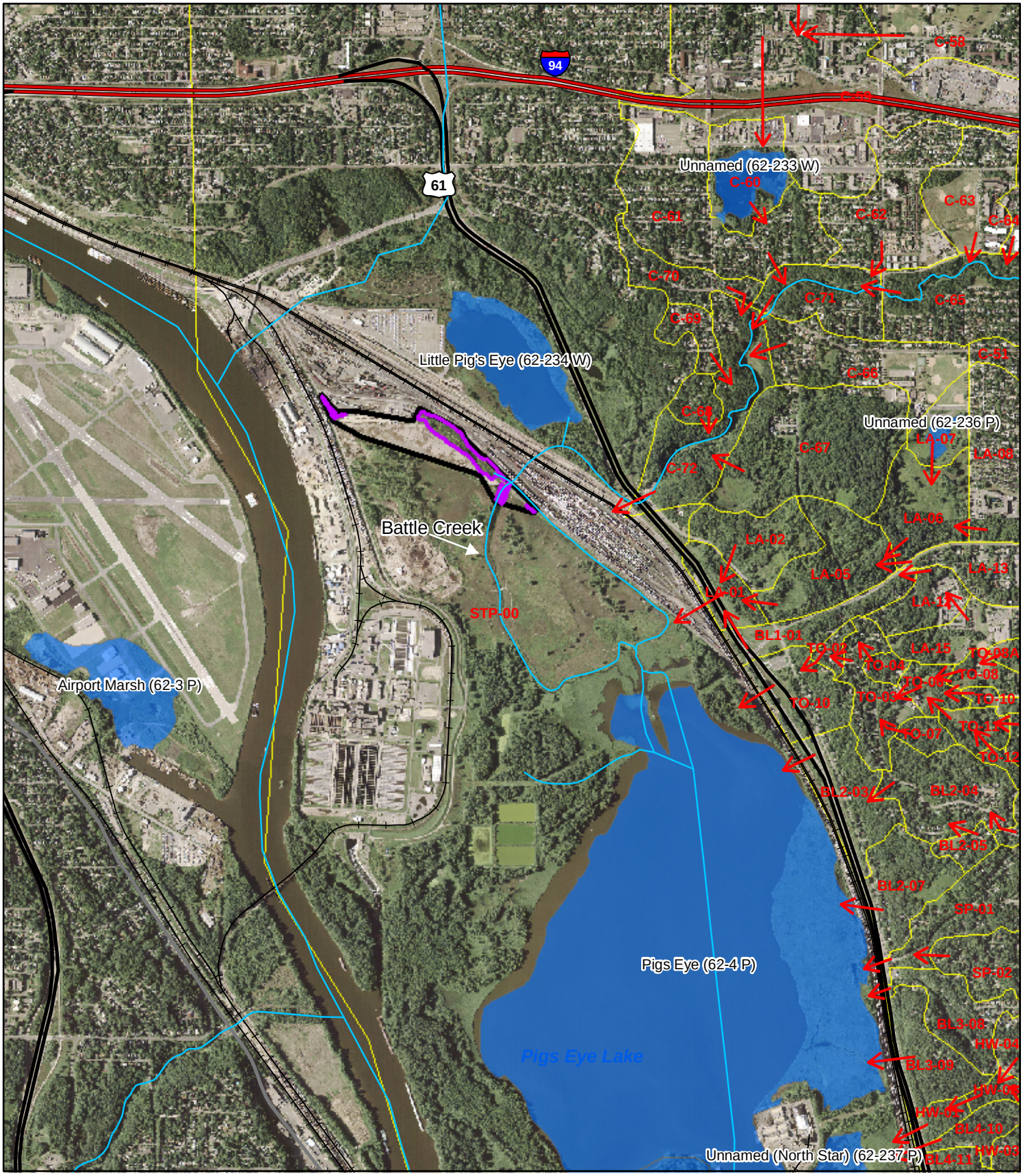
Railroad
Ramsey County NRCS Soils Data
Wetland Evaluation Area
Wetland Delineation

N

1,000 500 0 1,000
Feet

Figure 4

RAMSEY COUNTY SOIL SURVEY
Pig's Eye Site
St. Paul, Minnesota



Barr Footer: Date: 4/17/2008 9:07:52 AM File: i:\Projects\23\82\388\Maps\Wetlands\WRP\Fig05_DNRprotectedWaters.mxd User: ksw

2006 Aerial Imagery

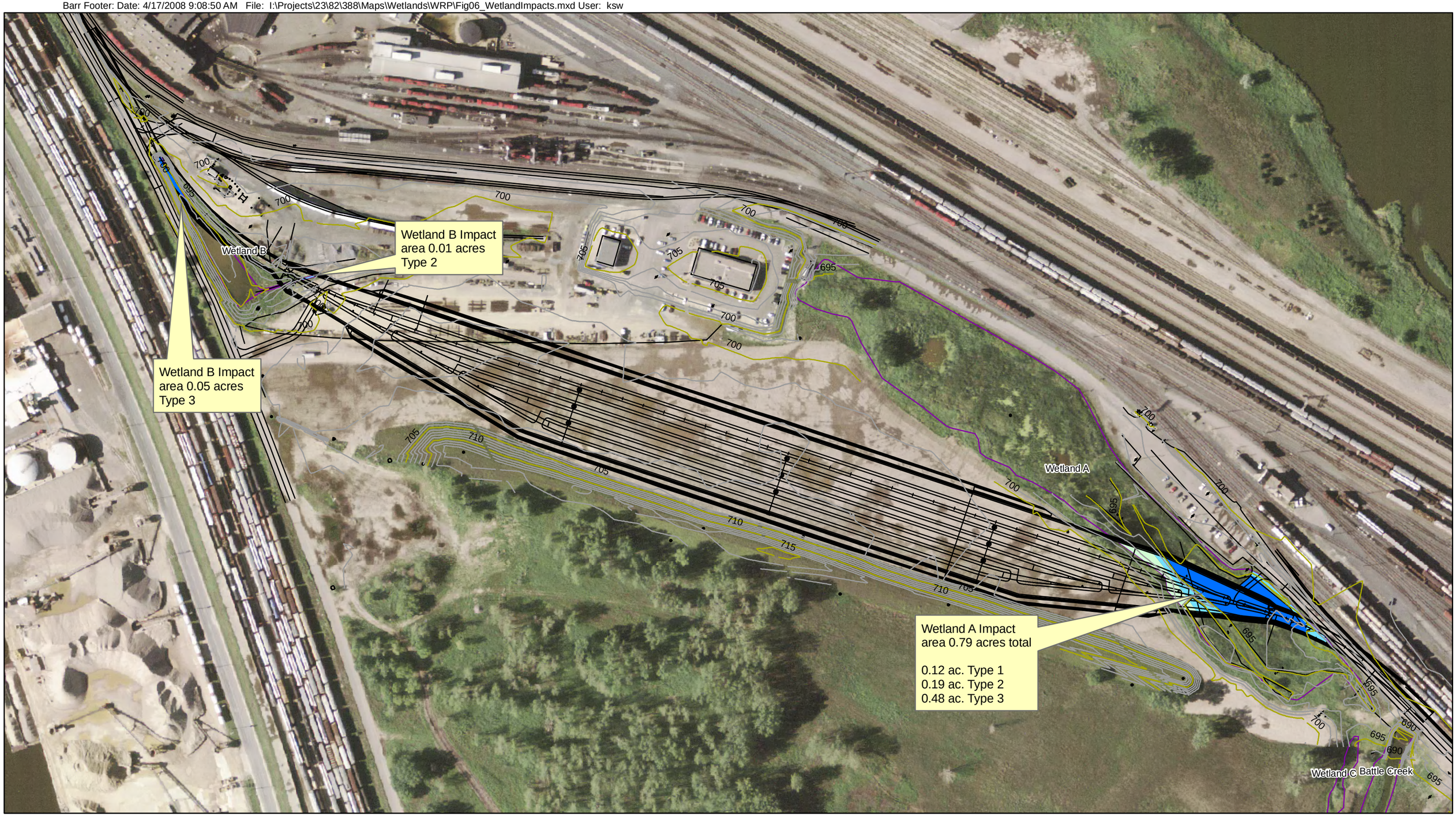
- Flow Arrows
- Streams
- Railroad
- DNR Protected Waters
- Wetland Delineation
- Wetland Evaluation Area
- RWMWD Drainage Areas

2,000 1,000 0 2,000

Feet

Figure 5

DNR PROTECTED WATERS
Pig's Eye Site
St. Paul, Minnesota



5 ft. Surface Contour

1 ft. Surface Contour

Proposed Trackbase

Wetland Delineation

Wetland Impact Areas

Type 1

Type 2

Type 3

2006 Aerial Imagery

0 100 200 400

Feet

Figure 6

PROPOSED INDUSTRIAL RAILYARD
AND WETLAND IMPACT AREAS
Pig's Eye Site
St. Paul, Minnesota

Wetland Delineation
Project Area

Wetland Impact Areas
Type 1
Type 2
Type 3

RWMWD Buffer Requirements
Manage C - Minimum 12.5 ft buffer required
Manage C - Average 25 ft buffer required
Manage B - Minimum 25 ft buffer required
Manage B - Average 50 ft buffer required

2006 Aerials Express

0 100 200 400
Feet

N

Figure 7

RWMWD BUFFER REQUIREMENTS
Pig's Eye Site
St. Paul, Minnesota

Appendices

Appendix A

Combined Project Application Form

Minnesota Local/State/Federal Application Forms for Water/Wetland Projects

USE THIS APPLICATION FOR ANY PROJECT AFFECTING A LAKE, RIVER, STREAM OR WETLAND, INCLUDING:

Local Government Unit Approval Pursuant to Minnesota Wetlands Conservation Act (WCA)
Minnesota Department of Natural Resources (DNR) Permit to Work in Public Waters
Department of the Army Permit (33 CFR 325)

Note: The U.S. Army Corps of Engineers (**COE**) will forward application forms to the Minnesota Pollution Control Agency (**MPCA**) for processing if state water quality certification is required from the MPCA. You **do not** need to send this application to the MPCA.

This application packet includes :

Part I: The **BASIC APPLICATION** and the **COE APPLICATION** to be filled out by all applicants (see Instructions).

PART II: The **REPLACEMENT PLAN SUPPLEMENT** to be completed ***only for*** projects that impact wetlands and require a replacement plan for wetland mitigation. **If you're not sure** whether your project requires a replacement plan, call your Local Government Unit (LGU) or Soil and Water Conservation District (SWCD) office for guidance.

Do not proceed with your project until you have received all required approvals from your LGU, the DNR and the COE. If you wish to confirm the status of your application at any time, contact the agencies directly (see Instructions, page 2). **Proceeding with work before all required authorizations are obtained may result in fines or other penalties, and may include a requirement to restore the project site to original condition.**

If you have questions or need assistance with filling out these forms, contact your local SWCD office, your LGU, your Area DNR Waters office, or your COE field office (see Instructions, page 2).

If you believe that your project may be subject to watershed district, local zoning, or any other local regulations besides those of your LGU, contact those office(s) directly. **If you are a Federal Farm Program participant** and your project affects a wetland or water body on agricultural land, your eligibility for USDA benefits may be affected. Contact a Natural Resources Conservation Service office for further information.

A QUICK LOOK AT THE PROJECT APPLICATION PROCESS

Electronic files: Forms can be downloaded and filled out using Microsoft Word. Your input will be restricted to fill-in fields where users can enter text or check boxes. These areas appear gray on the screen, but not on the printed document.

Send copies of these completed application forms to your LGU, your Area DNR Waters office, and your COE regulatory office.

Any of the agencies may make initial contact with you to: a) inform you that it has no jurisdiction over your project; b) request additional information needed; or c) inform you of applicable fees.

When your application is considered complete and appropriate fees have been received (if requested) it will be distributed for appropriate review.

Following agencies' reviews, you will be informed if it has been approved, approved with changes or conditions, withdrawn, or denied.
For information about state laws, rules and regulations that direct this process go to the web site www.revisor.leg.state.mn.us. For information on U.S. Army Corps of Engineers regulations go to the web site www.mvp.usace.army.mil.

Instructions for Part I

HELP 1: Every applicant must fill out Section 1. The applicant is the person, agency, company, corporation, or other organization that owns, leases, or holds other legal rights to the land where the project is located. Indicate names of multiple applicants on a separate sheet.

HELP 1A: Fill out Section 1A only if you have designated an authorized agent. An authorized agent may be an attorney, builder, consultant, contractor, engineer, or any other person or organization designated by the applicant to represent him/her in this process. An agent is not required.

HELP 5: Purpose, description and dimensions of project: State briefly (in a sentence or two) what you propose to do and why it is needed. Also, describe whether your project will involve any of the following:

- Construction of structures, filling, draining, dewatering, removing, excavating or repair.
- Construction of an access path, bridge, culvert, dam, ditch, dock, driveway, riprap, road, sand blanket, shore protection, or tile line.
- Construction of any structures on fill, piles or a float-supported platform. If so, describe.
- Dredging or discharging (placing fill material) into a wetland or other water body (including the temporary placement of material). If so, explain the specific purpose of the placement of the material (such as erosion control) and indicate how it will be done (such as with a backhoe or dragline). If dredged material is to be discharged on an upland site, identify the location of the site.

Include an overhead view drawing showing the work to be undertaken and its relative location on the property. Show items such as property boundaries or lot dimensions; location and extent of shoreline, wetlands and water; location and dimensions and footprint of the proposed project, structure or activity (include length, width, elevation and other measurements as appropriate); points of reference such as existing homes, structures, docks or landscape features; indication of north; and location of spoil and disposal sites (if applicable). Hand drawn, computer generated or professionally prepared drawings are acceptable, as long as they contain all necessary information clearly, accurately, and in adequate detail. Please include specific dimensions whenever possible. You may also include photos, if you wish.

HELP 7: For information regarding adjacent landowners, contact the tax assessor where the project is to be developed.

HELP 8: If any part of the work has already been completed, describe the area already developed. Include a description of structures completed; any dredged or fill material already discharged (including type of material and volume in cubic yards); acres or square feet filled (if a wetland or other waterbody); and whether the work was done under an existing permit (if so identify the authorization, if possible).

HELP 9: Other permits, reviews or approval related to the project may include the following: conditional use permit; plat approval; zoning variance; National Pollutant Discharge Elimination System permit; state disposal system permit (includes dredged material disposal); watershed district/watershed management organization permit (stormwater, erosion, floodplain); environmental assessment worksheet/environmental impact statement; hazardous waste site; feedlot permit; groundwater appropriation permit; or county/township driveway/road permit. Are you aware of any archeological or cultural resource determinations or surveys completed concerning the project or replacement site by the State Historic Preservation Office (SHPO) or others? If yes, please explain on a separate sheet or attach a copy of any determinations or surveys.

Final Checklists (Part I)

- ☐ **Have you completed all of Part I** (Page 1), plus the Federal application (Page 2)?
- ☐ **Did you (and your agent, if applicable) sign Section 10** on page 1?
- ☐ **Have you signed the Application for the Department of the Army Permit** (Page 2) to seek Federal authorization of your project?
- ☐ **Have you included the necessary attachments for Part I?**

Attachments *must* include:

- ☐ Site Locator Map (Section 3)
- ☐ Type of Project (Section 4) (if additional space was needed)
- ☐ Overhead View of Project (Section 5 and HELP 5)
- ☐ Project Purpose, Description and Dimensions (Section 5) (if additional space was needed)

Attachments *may* also include:

- ☐ Applicant Contact Information (HELP 1) (if additional space was needed)
- ☐ Project Location (Section 3) (if additional space was needed)
- ☐ Project Alternatives (Section 6) (if additional space was needed)
- ☐ Photographs
- ☐ Adjoining Property Owners (Section 7) (if additional space was needed)
- ☐ Work Already Completed Section (Section 8) (if you answered YES)
- ☐ State Historic Preservation Office determination or survey

Submitting Your Application

Make three copies of the entire application and all attachments. Keep the original, and mail **a complete copy of your application to each of the local, state, and Federal entities listed below.** Be sure to include Part I and all attachments with each application.

LOCAL: Send to the appropriate Local Government Unit (LGU). If necessary, contact your county Soil and Water Conservation District (SWCD) office or visit the Board of Water and Soil Resources (BWSR) web site (www.bwsr.state.mn.us) to determine the appropriate LGU.

STATE: Send to your Area DNR Waters office, attention Area Hydrologist. If necessary, contact your county Soil and Water Conservation District (SWCD) office or visit the DNR website (www.dnr.state.mn.us) to locate the Area Hydrologist for your location, or contact a Regional DNR office:

NW Region:	**NE Region:**	**Central Region:**	**Southern Region:**
2115 Birchmont Beach Road N.E.	1201 East Highway 2	1200 Warner Road	261 Highway 15 South
Bemidji, MN 56601	Grand Rapids, MN 55744	St. Paul, MN 55106	New Ulm, MN 56073
Phone: 218-755-3973	Phone: 218-327-4416	Phone: 651-772-7910	Phone: 507 359-6053

FEDERAL: Send to the appropriate U.S. Army Corps of Engineers regulatory field office:

Brainerd:	**St. Paul:**	**La Crescent:**	**Two Harbors:**
U.S. COE, Regulatory Branch	U.S. COE, Regulatory Branch	U.S. COE, Regulatory Branch	U.S. COE, Regulatory Branch
10867 E. Gull Lake Drive N.W.	Army Corps of Engineers Centre	1114 South Oak Street	1554 Highway 2, Suite 2
Brainerd, MN 56401-9051	190 5th Street East	La Crescent, MN 55947-1338	Two Harbors, MN 55616
Phone: 218-829-8402	St. Paul, MN 55101-9051	Phone: 507-895-8059	Phone: 218-834-6630
	Phone: 651-290-5375		

WEB SITES: BWSR: www.bwsr.state.mn.us U.S. ACOE: www.mvp.usace.army.mil DNR: www.dnr.state.mn.us MPCA: www.pca.state.mn.us

Minnesota Local/State/Federal Application Form for Water/Wetland Projects

For Internal Use Only			
Application No.	Field Office Code	Date Initial Application Received	Date initial Application Deemed Complete

PART I: BASIC APPLICATION

"See HELP" directs you to important additional information and assistance in Instructions, Page 1.

1. LANDOWNER/APPLICANT CONTACT INFORMATION *(See Help 1)*

Name: Greg Schafer, Marathon Petroleum Company Phone: 651-458-2758

Complete mailing address: 301 St. Paul Park Rd., St. Paul Park, MN 55071

1A. AUTHORIZED AGENT *(See Help 1A) (Only if applicable; an agent is not required)*

Name: Joe Berns, Barr Engineering Company Phone: 952-832-2932

Complete mailing address: 4700 West 77th St., Minneapolis, MN 55435-4803

2. NAME, TYPE AND SIZE OF PUBLIC WATERS or WETLANDS IMPACTED (Attach *Additional Project Area* sheets if needed)

Name or I.D. # of Waters Impacted (if applicable; if known): Table 2

(Check all that apply): ☐Lake ☐River ☒Wetland type ☒ 1 ☐ 1L ☒ 2 ☒ 3 ☐4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

Indicate size of entire lake or wetland (check one): ☒ Less than 10 acres (indicate size: 6.92) ☐10 to 40 acres ☐ Greater than 40 acres

3. PROJECT LOCATION *(Information can be found on property tax statement, property title or title insurance):*

Project street address: Fire #: City (if applicable): St. Paul

¼ Section: SW, SE Section: 3, 4 Township #: 28 Range #: 22 County: Ramsey

Lot #: Block: Subdivision: Watershed (name or #) Mississippi R./20

Attach a simple site locator map. If needed, include on the map written directions to the site from a known location or landmark, and provide distances from known locations. Label the sheet *SITE LOCATOR MAP.*

4. TYPE OF PROJECT: Describe the type of proposed work. Attach *TYPE OF PROJECT* sheet if needed.

See Sections 2 and 3 in WRP Narrative

5. PROJECT PURPOSE, DESCRIPTION AND DIMENSIONS: Describe what you plan to do and why it is needed, how you plan to construct the project with dimensions (length, width, depth), area of impact, and when you propose to construct the project. **This is the most important part of your application. See HELP 5 before completing this section; see What To Include on Plans** (Instructions, page 1). Attach *PROJECT DESCRIPTION* sheet.

See WRP Narrative and Appendix D of WRP

Footprint of project: 18 acres or square feet drained, filled or excavated.

6. PROJECT ALTERNATIVES: What alternatives to this proposed project have you considered that would avoid or minimize impacts to wetlands or waters? List at least **TWO** additional alternatives to your project in Section 5 that avoid wetlands (one of which may be "no build" or "do nothing"), and explain why you chose to pursue the option described in this application over these alternatives. Attach *PROJECT ALTERNATIVES* sheet if needed.

See WRP Narrative, Section 3.0

7. ADJOINING PROPERTY OWNERS: For projects that impact more than 10,000 square feet of water or wetlands, list the complete mailing addresses of adjacent property owners on an attached separate sheet. (See **HELP 7**)

8. PORTION OF WORK COMPLETED: Is any portion of the work in wetland or water areas already completed? ☐ Yes ☒No. If yes, describe the completed work on a separate sheet of paper labeled **WORK ALREADY COMPLETED.** (See **HELP 8**)

9. STATUS OF OTHER APPROVALS: List any other permits, reviews or approvals related to this proposed project that are either **pending** or **have already been approved or denied on a separate attached sheet. See HELP 9.**

10. I am applying for state and local authorization to conduct the work described in this application. I am familiar with the information contained in this application. To the best of my knowledge and belief, all information in Part I is true, complete, and accurate. I possess the authority to undertake the work described, or I am acting as the duly authorized agent of the applicant.

Greg Schafer 12/22/08 Joe Berns 12/22/08

Signature of applicant (Landowner) *Date* *Signature of agent (if applicable)* *Date*

This block must be signed by the person who desires to undertake the proposed activity and has the necessary property rights to do so. If only the Agent has signed, please attach a separate sheet signed by the landowner, giving necessary authorization to the Agent.

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325) **OMB APPROVAL NO. 0710-003 Expires Dec 31, 2004**

ITEMS 1 THROUGH 4 TO BE FILLED IN BY THE CORPS

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED

YOU *DO NOT* NEED TO COMPLETE ITEMS 6-10 and 12-25 in the SHADED AREAS.

All applicants must complete **non-shaded** items 5 and 26. If an agent is used, **also** complete items 8 and 11. This optional Federal form is valid for use ***only*** when included as part of this entire state application packet.

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)
Greg Schafer	Joe Berns (Barr Engineering), Engineer
6. APPLICANT'S ADDRESS	9. AGENT'S ADDRESS
7. APPLICANT'S PHONE NO.	10. AGENT'S PHONE NO.

11. STATEMENT OF AUTHORIZATION (*if applicable; complete* **only** *if authorizing an agent)*
I hereby authorize Joe Berns (Barr Engineering) to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE: Greg Schafer DATE: 12/22/08

12. PROJECT NAME OR TITLE (see instructions)	
13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
15. LOCATION OF PROJECT	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)	
17. DIRECTIONS TO THE SITE	18. NATURE OF ACTIVITY
19. PROJECT PURPOSE	20. REASON(S) FOR DISCHARGE
21. TYPES OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS	
22. SURFACE AREA IN ACRES OF WETLANDS OR OTHER WATERS FILLED	
23. IS ANY PORTION OF THE WORK ALREADY COMPLETE? YES ____ NO ____ IF YES, DESCRIBE COMPLETED WORK.	
24. ADDRESSES OF ADJOINING PROPERTY OWNERS.	
25. LIST OF OTHER CERTIFICATIONS OR APPROVALS/DENIALS RECEIVED FROM OTHER FEDERAL, STATE OR LOCAL AGENCIES FOR WORK DESCRIBED IN THIS APPLICATION.	

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Greg Schafer — Signature of applicant — 12/22/08 — Date

Joe Berns — Signature of agent (if any) — 12/22/08 — Date

The application must be signed by the person who desires to undertake the proposed activity (applicant), or it may be signed by a duly authorized agent if the statement in Block 11 has been filled out and signed. **18 U.S.C. Section 1001** provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up with any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

ENG FORM 4345, Jul 97 EDITION OF FEB 94 IS OBSOLETE. (Proponent: CECW-OR)

18. ADDITIONAL INFORMATION REQUIRED FOR PROJECT-SPECIFIC REPLACEMENT (Required *only* if you marked Box B or Box C in Section 14):
For projects involving at least some project-specific replacement, include the following additional information:

☐ **Two drawings to scale** of the replacement wetland. Include both overhead view and profile (side view or cross-sectional view). See *What to Include on Plans* (Instructions, Page 3) for a detailed description of what should be included in these drawings. Without drawings, **your application will be considered incomplete.**

☐ **For created replacement wetlands,** include additional soils information (if available) that indicates the capability of the site to produce and maintain wetland characteristics.

Note 1: For replacement wetlands located on pipeline easements, you need to receive endorsement of your project from both the easement holder and the Minnesota Department of Public Safety's Office of Pipeline Safety. Before start of construction, the owner of any utilities must be notified. The landowner or contractor is responsible for giving this notice by calling "Gopher State One-Call" at 652–454-0002 (Twin Cities Metro Area) or 1-800-252-1166 (all other locations).

Note 2: For extensive or complex projects supplementary information may be requested at a later dated from one or more of the responding agencies. Such information may include (but not be limited to) the following: topographic map, water table map, soil borings, depth soundings, aerial photographs, environmental assessment and/or engineering reports.

19. SIGNED AFFIRMATION:

FOR PROJECTS INVOLVING REPLACEMENT BY WETLAND BANKING ONLY. To the best of my knowledge and belief, all information in Part II is true, complete and accurate; and I affirm that the wetland losses will be replaced via withdrawal from an account in the State Wetland Bank.

FOR PROJECTS INVOLVING EITHER PROJECT-SPECIFIC REPLACEMENT ONLY OR A COMBINATION OF WETLAND BANKING AND PROJECT-SPECIFIC REPLACEMENT:

Part A: The replacement wetland. I affirm that the replacement wetland was not:
Previously restored or created under a prior approved replacement plan or permit; **AND**
Drained or filled under an exemption during the previous 10 years; **AND**
Restored with financial assistance from public conservation programs; **AND**
Restored using private funds, other than landowner funds, unless the funds are paid back with interest to the individual or organization that funded the restoration; and the individual or organization notifies the local government unit in writing that the restored wetland may be considered for replacement.

Part B: Additional assurances (check **all** that apply):
☐ The wetland will be replaced before or concurrent with the actual draining or filling of a wetland.
☐ An irrevocable bank letter of credit, performance bond, or other acceptable security has been provided to guarantee successful completion of the wetland replacement.
☒ The wetland losses will be replaced via withdrawal from an account in the State Wetland Bank.

Part C. For projects involving any project-specific replacement: Within 30 days of either receiving approval of this application or beginning work on the project, I will record the Declaration of Restrictions and Covenants on the deed for the property on which the replacement wetland(s) will be located; and I will at the same time submit proof of such recording to the LGU.

To the best of my knowledge and belief, all information in Part II is true, complete and accurate; and I affirm all statements in Part A and C, as well as checked assurance(s) in Part B.

Joe Bru — *Signature or applicant or agent*

12/22/08 — *Date*

FOR LGU USE ONLY

Replacement plan is (check one): ☐ Approved ☐ Approved with conditions (conditions attached) ☐ Denied

_____ *LGU official signature*

_____ *Date*

LGU has receive evidence of title and proof of recording of Declaration of Restrictions and Covenants for Replacement Wetland:

_____ *County where recorded*

_____ *Date*

_____ *Document # assigned by recorder*

_____ *LGU official signature*

_____ *Date*

14. **HOW PROPOSED REPLACEMENT WILL BE ACCOMPLISHED**: Indicate how proposed replacement will be accomplished (check only **one** box below and continue as indicated):

☒ A. Wetland banking only
Complete *Application for Withdrawal of Wetland Credits Form* and include with your application. Copies of this form are available from your LGU, or download a copy from www.bwsr.state.mn.us
Skip to Section 19, page 6 (You do not need to complete Sections 15-18).

☐ B. Project-specific replacement only
Continue with Section 15 below.

☐ C. A Combination of wetland banking and project-specific replacement
Complete *Application for Withdrawal of Wetland Credits Form* and include with your application. Copies of this form are available from your LGU, or download a copy from www.bwsr.state.mn.us
Continue with Section 15 below.

15. DESCRIPTION OF REPLACEMENT WETLAND(S) CONSTRUCTION (Complete this section only if you marked Box B or Box C in Section 14 above):
Describe in detail how replacement wetland(s) will be constructed. If several methods will be used, describe each method. Details should include the following: 1) type of construction (such as excavated in upland, restored by tile break, restored by ditch block or revegetated); 2) type, size and specifications of outlet structures; 3) elevations relative to Mean Sea Level or established benchmarks or key features (such as sill, emergency overflow or structure height); 4) what best management practices will be implemented to prevent erosions or site degradation; 5) proposed timetable for starting and ending the project; and 6) a vegetation management plan. Write this description on a separate sheet of paper labeled *DESCRIPTION OF REPLACEMENT WETLAND CONSTRUCTION.*
See WRP Narrative, Section 6.0

16. SURPLUS WETLAND CREDITS: If using project-specific replacement (Box B or Box C in Section 14 above), will the replacement result in any surplus wetland credits that you wish to have deposited in the State Wetland Bank for future use? ☐ Yes ☒ No. If yes, **submit a Wetland Banking Application directly to your LGU.** Copies are available from your LGU, or download a copy from www.bwsr.state.mn.us

17. DESCRIPTION OF REPLACEMENT WETLANDS: Complete the chart below: 1) Use one row of boxes for each wetland replacement site; 2) If your project has more that one wetland replacement site, reference your overhead view (part of Section 5) to this chart by identifying and labeling "first replacement site" and "second replacement site" **on your overhead view;** 3) If you are identifying only one wetland type within a given replacement site, use the first dotted line(s) and leave the others blank; 4) If you have chosen to identify more than one wetland type in a given replacement site, use the extra dotted lines to indicate each separate wetland type, and identify type(s) of replacement credits and "restored or created" **for each separate wetland type with that replacement site;** 5) If you do not have access to some of the information, or if you do not know your replacement ratio, call your LGU or SWCD office for assistance. *Photocopy chart for more wetland replacements, if needed.)*

DESCRIPTION OF REPLACEMENT WETLANDS

Identify Wetland replacement site *(as noted on overhead view)*	Watershed name or number *(if known)*	County	Section, Township, Range	Wetland Type[1]	Type(s) of replacement credits *(in acres or square feet)*		Restored or created? Indicate R or C
					New Wetland Credits (NWC)	Public Value Credits (PVC)	
Name of First replacement site	Mississippi River- 20	Hennepin		3	0.74 ac.		C
				5	0.05 ac.		C
Name of Second replacement site	Mississippi River - 20	Ramsey		Upland		0.87	C
					0.79 **TOTAL NWC**	0.87 **TOTAL PVC**	

[1]**Circular 39 wetland types:** Indicate1, 1L, 2, 3, 4, 5, 6, 7, 8, R, or U. If you are identifying only one wetland type within a given wetland impact area, use the first dotted line and leave the others blank. If you have chosen to identify more than one wetland type within a given wetland impact area, use the extra dotted lines to indicate each separate wetland type, and identify predominant vegetation and size of impacted area **for each separate wetland type within that impact area.**

REQUIRED REPLACEMENT RATIO:
(If known) 2:1, and 2.25:1 for portion out of kind

PART II: REPLACEMENT PLAN SUPPLEMENT

For assistance in completing Part II, contact your Local Government Unit or a professional consultant

11. DESCRIPTION OF WETLAND IMPACTS: Complete the chart below: 1) Use one row of boxes for each wetland impact; 2) If your project has more than one wetland impact, reference your overhead view (part of Section 5) to this chart by identifying and labeling "first impact" and "second impact" **on your overhead view;** 3) If you are identifying only one wetland type within a given wetland impact area, use the first dotted line and leave the others blank; 4) If you have chosen to identify more than one wetland type within a given wetland impact area, use the extra dotted lines to indicate each wetland type, and identify predominant vegetation and size of impacted area **for each separate wetland type within that impact area;** 5) If you do not have access to some of this information, call your LGU or SWCD office for assistance. *(Photocopy chart for more impacts, if needed.)*

DESCRIPTION OF WETLAND IMPACTS

Wetland impact ***(as noted on overhead view)***	**Watershed name or number** ***(if known)***	**County, Section, Township, Range**	**Wetland type**[1]	**Predominant vegetation in impacted wetland area**	**Size of area impacted (in acres or square feet)**	**Existing land use in project area (check all that apply)**
First impact	Mississippi River-Ramsey (20)	See WRP	1, 2, 3 See Table 1, Fig 6 & Sec 6.0	Sec. 6.3 and Table 1	0.79 ac.	☐ Housing ☐ Commercial ☒ Industrial ☐ Parks/recreation areas ☐ Highways and associated rights-of-way ☐ Forested ☐ Farmsteads/agricultural ☐ Vacant lands ☐ Public and semi-public (schools/gov't facilities) ☐ Airports ☐ Extractive (gravel pits/quarries) ☐ Other:
Second impact						

[1]If you are identifying only one wetland type within a given wetland impact area, use the first dotted line and leave the others blank. If you have chosen to identify more than one wetland type within a given wetland impact area, use the extra dotted lines to indicate each separate wetland type, and identify predominant vegetation and size of impacted area **for each separate wetland type with that impact area.**

***TOTALS* OF AREA(S) IMPACTED FOR EACH WETLAND TYPE ON CHART** (*indicate acres* ☒ *or square feet* ☐)

Type: 1: 0.12 1L: _____ 2: 0.19 3: 0.48 4: _____ 5: _____ 6: _____ 7: _____ 8: _____ R: _____

12. SPECIAL CONSIDERATIONS: Are you aware of any special considerations that apply to either the impact site(s) or the replacement site(s)? ☐ Yes ☒ No (Examples: the presence of endangered species, special fish and wildlife resources, sensitive surface waters, or waste disposal site.) If YES, list and describe briefly.

13. SHORELAND IMPACT ZONE: Please identify each wetland impact site noted in Section 15 that is within 1000 feet of a lake or 300 feet of a river.

Wetland A

Instructions For Part II

Complete those portions of Part II: Replacement Plan Supplement for which information is readily available (such as location, existing land use, size of impact area, etc.) A person certified in wetland delineation must determine items pertaining to specific wetland impacts (wetland type, predominant vegetation, watershed name, etc.) Contact the local soil and water conservation district (SWCD) office for further information on obtaining such items.

What to Include on Plans

Detailed overhead views of replacement site(s) (Part II), as well as profile view(s) of replacement site(s) (Part II), may be either hand drawn, computer generated or professionally prepared, as long as they contain all necessary information clearly, accurately, and in adequate detail. Please include specific dimensions whenever possible. You may also include photos, if you wish.

Overhead views of Part II replacement site(s) should include the following items that pertain to your project:

- Property boundaries and/or lot dimensions.
- Location and extent of shoreline, wetlands and water.
- Location and dimensions of proposed project, structure or activity. Include length, width, elevation and other measurements as appropriate.
- Points of reference (such as existing homes, structures, docks or landscape features).
- Location of inlet and outlet structures.
- Indication of north.
- Location of spoil and disposal sites (if applicable).
- Areas of wetland and upland plants established.

Profile views (side or cross-sectional views) should include the following items that pertain to your project:

- Location and dimensions of proposed project, structure or activity. Include elevation, depth, soil profile, side slope and other measurements as appropriate.
- Proposed water level elevation.

Final Checklists
Part II: Replacement Plan Supplement

☐ **Have you completed all of Part II** (pages 3-5)?
☐ **Did you (or your agent) sign Section 19** on page 5?
☐ **Have you included the necessary attachments for Part II?**

Attachments *must* include:
☒ **If the project includes any wetland banking** (complete or partial), include Application for Withdrawal of Wetland Credits Form (Section 14)
☐ **If the project includes any project-specific replacements** (complete or partial), include:

- Description of Replacement Wetland(s) Construction (Section 15)
- Copy of vegetation management plan (Section 15)
- Scale drawing of overhead view or replacement wetland (Section 18)
- Scale drawing of profile view of replacement wetland (Section 18)

Attachments *may* also include:
☐ Additional description of Wetland Impact Charts (Section 11) (if additional space was needed)
☐ Additional Description of Replacement Wetlands charts (Section 17) (if additional space was needed)
☐ Additional soils information for created replacement wetland(s) (Section 18) (if available)

Note: To deposit surplus wetland credits in the State Wetland Bank, submit a Wetland Banking Application directly to your LGU (Section 16).

Preparing Your Application for Mailing

☒ **To apply for both state and Federal authorization, your application must include Part I** (Page 1), **the Federal application** (Page 2), **and attachments** as indicated on *Final Checklist for Part I* (Instructions, Page 2).
☐ **Your application must also include Part II** (Pages 3-5) and additional attachments as indicated on *Final Checklist for Part II* (above).
☐ **Make three copies of the entire application and all attachments.** Keep the original, and mail the three copies to the appropriate local, state, and Federal agencies (see Instructions for Part I for addresses).

FOR LGU USE ONLY:

Determination for Part 1:
- ☐ No WCA Jurisdiction
- ☐ Exempt: No. ____ (per MN Rule 8420.0122)
- ☐ No Loss: ____ (A,B,. . .G, per MN Rule 8420.0220)
- ☐ Replacement required – applicant must complete Part II

COMPLETE THE SECTION BELOW ONLY IF REPLACEMENT IS NOT REQUIRED:

Application is (check one): ☐ Approved ☐ Approved with conditions (conditions attached) ☐ Denied

Comments/Findings: _____

_____ _____

LGU official signature *Date*

_____

Name and Title

For Agricultural and Drainage exemptions (MN Rule 8420.0122 Subps. 1 and 2B), LGU has received proof of recording of restrictions (per MN Rule 8420.0115):

_____ _____ _____

County where recorded *Date* *Document # assigned by recorder*

_____ _____

LGU official signature *Date*

Appendix B

Application for Withdrawal of Wetland Credits

APPLICATION FOR WITHDRAWAL OF WETLAND CREDITS FROM THE MINNESOTA WETLAND BANK

Return Original to BWSR – Transaction will not be processed without original signatures

1. PROPOSED USER OF CREDITS

Name(s): Marathon Petroleum Company LLC

Address: 301 St. Paul Park Road

St. Paul Park, MN , 55071
City State ZIP

Day Phone: 651-458-2758

2. Impact Site Information

County: Ramsey Major Wtrshd No.20
Location: Sects. 3SW + 4SE , Twp. 28 Rge. 22
Size of Wetland Impact: 0.85 ac.
Wetland Types[2] Impacted: 1, 2, and 3
Topo Setting[3]: isolated and flow-through
Required Replacement Ratio: 2:1, and 2.25:1 for out of kind portion WCA or local Ordinance?
Amount to be replaced using Bank Credits: 1.66 ac. total
Amount replaced on site: none
Project Name: Marathon Petroleum Pig's Eye Rail Yard Expansion
Attach replacement plan if additional detail is needed.

3. OWNER / SELLER OF CREDITS

Account No. 1346 Watershed No. 20
County: Hennepin
Name of Seller: Paul Robinson
Address:

Paul Robinson - Account Manager
(Name and Title of Authorized Representative)

_____
(Signature of Seller/Authorized Representative)
Phone: 763-398-0320

4. Regulating Authority(ies) Approving the Use of Wetland Bank Credits

WCA Replacement Plan Approved by (check all that apply):

☒ Local LGU (Print LGU Name) City of St. Paul
LGU Permit #_____
☒ U.S. Army Corps of Engineers: Permit #
☐ MN Dept. of Natural Resources: Permit #_____
☐ Natural Resources Conservation Service: Permit #_____
☐ Other authority involved*: _____

*Attach relevant information explaining the details and relationship of the other regulatory authority.

5. CREDITS PROPOSED TO BE WITHDRAWN FROM ACCOUNT NO. #1346

Credit Sub-Group[1]	NWC Acres or Sq. Ft.	PVC Acres or Sq. Ft.	Wetland Type[2]	Topo. Setting[3]	Cost per Sq. Foot
B	0.74 ac		3	Shallow marsh	1.25
D	0.05 ac		5	Shallow open water	1.25
Totals: 0.79 ac					

[1]Bank accounts are assigned letters to signify credit sub-groups, which represent wetland areas with different wetland characteristics.
[2]Circular 39 types: 1, 1L, 2, 3, 4, 5, 6, 7, 8, R, U (for Upland Buffer).
[3]Topographic setting types: shoreland, riverine, floodplain, flow-through, tributary, isolated.

6. CERTIFICATION OF USER OF WETLAND CREDITS

The proposed user of credits hereby certifies that he/she: **a)** either owns the subject wetland credits or has entered into an agreement to purchase said credits, subject to the approval of all applicable regulatory authorities and **b)** has filed appropriate plans, specifications and application forms with all applicable regulatory authorities that describe the wetland or water resource impacts for which the subject wetland credits will be utilized for mitigation purposes.

Authorized Signature of Proposed User of Credits	Print Name	Date

7. REGULATORY AUTHORITY APPROVAL(S)

The following authorized representatives of the regulatory authority (ies) identified on page 1 of this application hereby certify that they have: a) verified that the subject wetland credits are deposited in the account of the owner / seller, b) approved a wetland replacement plan or other water resource impact under their jurisdiction, and c) approved the proposed use of the wetland bank credits described herein.

Print Name of WCA LGU Official	Signature of Authorized WCA LGU Official	Date
Print Name of Other Regulatory Official	**Signature of Authorized Official**	**Date**
Print Name of Other Regulatory Official	**Signature of Authorized Official**	**Date**

8. CERTIFICATION OF OWNER / SELLER OF CREDITS

I am the holder of the aforementioned account in the State of Minnesota Wetland Mitigation Bank and hereby certify that:

1) the credits described in this application have either been sold to the user of credits or I will use them to mitigate wetland impacts for my own project,
2) I have received payment in full from the buyer (if applicable),
3) the credits have not been sold or used in any way to mitigate wetland losses other than for the project and location identified in the project site information block on the previous page,
4) the subject wetland credits should be withdrawn my account, and
5) I will not have a negative balance of credits after the subject credits are debited from my account.

Authorized Signature of Owner / Seller of Credits , **Date**

9. BWSR APPROVAL AND DEBITING OF ACCOUNT

I hereby certify that the credits have been properly debited from the subject account, effective the date of signature.

Authorized Signature & Title , **Date**

Upon approval by the BWSR, a copy of this instrument will be mailed to the user of the credits, all regulatory authorities involved, the account holder and the Board Conservationist. A letter will also be sent to the account holder acknowledging the debit and new account balance.

IMPORTANT REMINDERS

1. **The Regulatory Authority approving the use of the credits has the ultimate responsibility to submit this form when fully executed (with original signatures) to the BWSR Wetland Bank Administrator so the affected account can be properly debited**. It is acceptable for the Regulatory Authority to allow the user or seller of the credits to submit this form to BWSR, however the Regulatory Authority is still responsible if the use of the credits is not properly reported to BWSR**.**
2. **No impacts to any wetland or other water resource may commence until the credits have been debited from the Minnesota Wetland Mitigation Bank and a copy of this approval has been mailed to the regulatory authority(ies), the account holder and the user of the credits.**
3. **It is a criminal offense for a seller of wetland credits to sell credits more than one time**. It is the responsibility of the account holder to report any credit sales that are not noted on the most current official BWSR account balance.

BWSR Form: WCA-WB-05 (May 2002)
(Application for Withdrawal of Credits)

APPLICATION FOR WITHDRAWAL OF WETLAND CREDITS FROM THE MINNESOTA WETLAND BANK

Return Original to BWSR – Transaction will not be processed without original signatures

1. PROPOSED USER OF CREDITS

Name(s): Marathon Petroleum Company LLC

Address: 301 St. Paul Park Road

St. Paul Park, MN , 55071
City State ZIP

Day Phone: 651-458-2758

2. Impact Site Information

County: Ramsey Major Wtrshd No.20
Location: Sects. 3SW + 4SE , Twp. 28 Rge. 22
Size of Wetland Impact: 0.85 ac.
Wetland Types[2] Impacted: 1, 2, and 3
Topo Setting[3]: isolated and flow-through
Required Replacement Ratio: 2:1, and 2.25:1 for out of kind portion WCA or local Ordinance?
Amount to be replaced using Bank Credits: 1.66 ac. total
Amount replaced on site: none
Project Name: Marathon Petroleum Pig's Eye Rail Yard Expansion
Attach replacement plan if additional detail is needed.

3. OWNER / SELLER OF CREDITS

Account No. 1138 Watershed No. 20
County: Ramsey
Name of Seller:
Address:

Linda Fisher - Account Manager
(Name and Title of Authorized Representative)

_____
(Signature of Seller/Authorized Representative)
Phone: 952-896-3210

4. Regulating Authority(ies) Approving the Use of Wetland Bank Credits

WCA Replacement Plan Approved by (check all that apply):

☒ Local LGU (Print LGU Name) City of St. Paul
LGU Permit #_____
☒ U.S. Army Corps of Engineers: Permit #
☐ MN Dept. of Natural Resources: Permit #_____
☐ Natural Resources Conservation Service: Permit #_____
☐ Other authority involved*: _____

*Attach relevant information explaining the details and relationship of the other regulatory authority.

5. CREDITS PROPOSED TO BE WITHDRAWN FROM ACCOUNT NO. #1138

Credit Sub-Group[1]	NWC Acres or Sq. Ft.	PVC Acres or Sq. Ft.	Wetland Type[2]	Topo. Setting[3]	Cost per Sq. Foot
B		0.87 ac	Upland		0.29
Totals: 0.87 ac					

[1]Bank accounts are assigned letters to signify credit sub-groups, which represent wetland areas with different wetland characteristics.
[2]Circular 39 types: 1, 1L, 2, 3, 4, 5, 6, 7, 8, R, U (for Upland Buffer).
[3]Topographic setting types: shoreland, riverine, floodplain, flow-through, tributary, isolated.

BWSR Form: WCA-WB-05 (May 2002)
(Application for Withdrawal of Credits)

6. CERTIFICATION OF USER OF WETLAND CREDITS

The proposed user of credits hereby certifies that he/she: **a)** either owns the subject wetland credits or has entered into an agreement to purchase said credits, subject to the approval of all applicable regulatory authorities and **b)** has filed appropriate plans, specifications and application forms with all applicable regulatory authorities that describe the wetland or water resource impacts for which the subject wetland credits will be utilized for mitigation purposes.

Authorized Signature of Proposed User of Credits	Print Name	Date

7. REGULATORY AUTHORITY APPROVAL(S)

The following authorized representatives of the regulatory authority (ies) identified on page 1 of this application hereby certify that they have: a) verified that the subject wetland credits are deposited in the account of the owner / seller, b) approved a wetland replacement plan or other water resource impact under their jurisdiction, and c) approved the proposed use of the wetland bank credits described herein.

Print Name of WCA LGU Official	Signature of Authorized WCA LGU Official	Date
Print Name of Other Regulatory Official	**Signature of Authorized Official**	**Date**
Print Name of Other Regulatory Official	**Signature of Authorized Official**	**Date**

8. CERTIFICATION OF OWNER / SELLER OF CREDITS

I am the holder of the aforementioned account in the State of Minnesota Wetland Mitigation Bank and hereby certify that:

1) the credits described in this application have either been sold to the user of credits or I will use them to mitigate wetland impacts for my own project,
2) I have received payment in full from the buyer (if applicable),
3) the credits have not been sold or used in any way to mitigate wetland losses other than for the project and location identified in the project site information block on the previous page,
4) the subject wetland credits should be withdrawn my account, and
5) I will not have a negative balance of credits after the subject credits are debited from my account.

Authorized Signature of Owner / Seller of Credits , **Date**

9. BWSR APPROVAL AND DEBITING OF ACCOUNT

I hereby certify that the credits have been properly debited from the subject account, effective the date of signature.

Authorized Signature & Title , **Date**

Upon approval by the BWSR, a copy of this instrument will be mailed to the user of the credits, all regulatory authorities involved, the account holder and the Board Conservationist. A letter will also be sent to the account holder acknowledging the debit and new account balance.

IMPORTANT REMINDERS

1. **The Regulatory Authority approving the use of the credits has the ultimate responsibility to submit this form when fully executed (with original signatures) to the BWSR Wetland Bank Administrator so the affected account can be properly debited**. It is acceptable for the Regulatory Authority to allow the user or seller of the credits to submit this form to BWSR, however the Regulatory Authority is still responsible if the use of the credits is not properly reported to BWSR**.**
2. **No impacts to any wetland or other water resource may commence until the credits have been debited from the Minnesota Wetland Mitigation Bank and a copy of this approval has been mailed to the regulatory authority(ies), the account holder and the user of the credits.**
3. **It is a criminal offense for a seller of wetland credits to sell credits more than one time**. It is the responsibility of the account holder to report any credit sales that are not noted on the most current official BWSR account balance.

BWSR Form: WCA-WB-05 (May 2002)
(Application for Withdrawal of Credits)

Appendix C

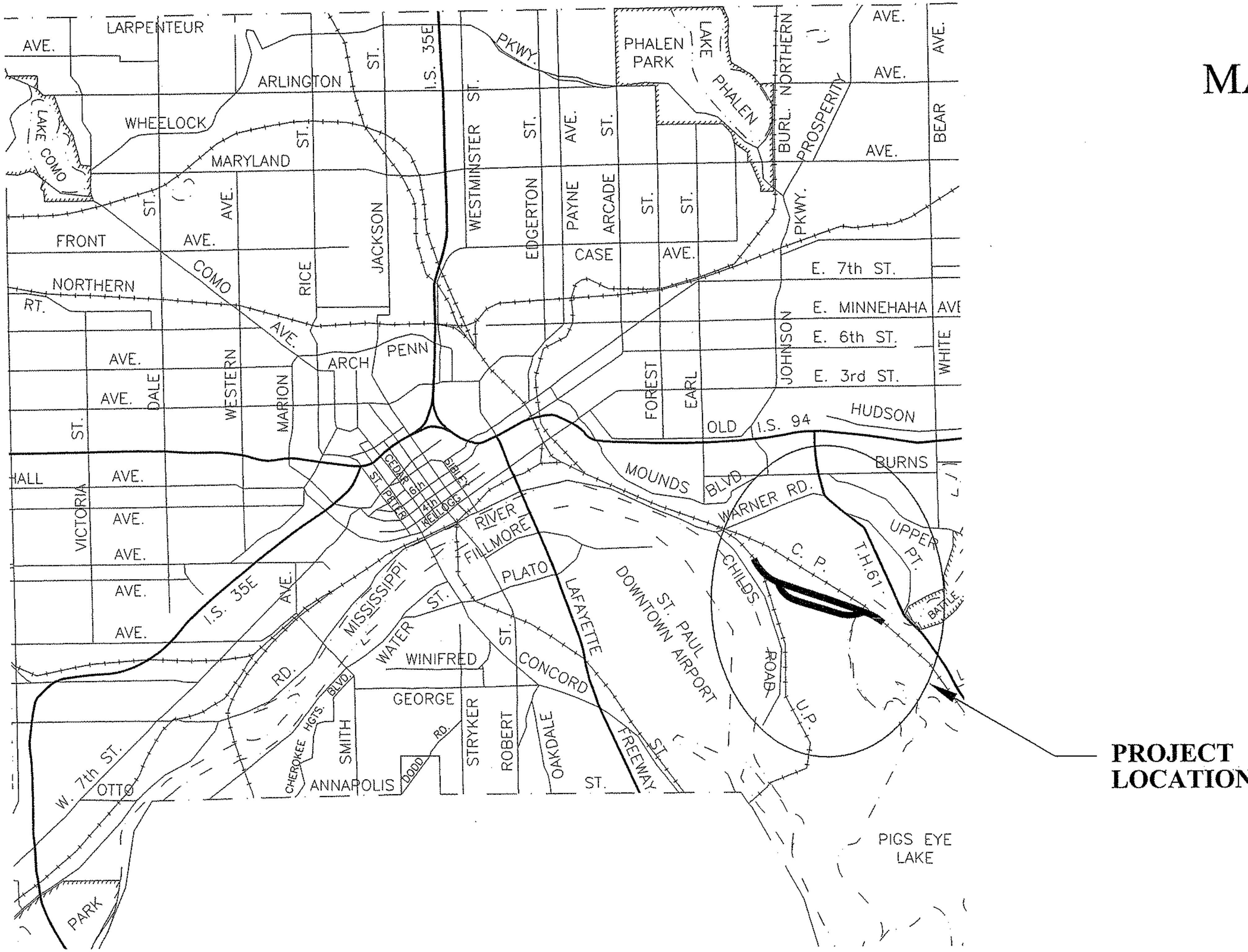
Project Construction Plans and Cross Sections

MARATHON PETROLEUM L.L.C.
ST PAUL RAIL YARD

TKDA PROJ. NO. 13518.001

DRAWING INDEX

THIS PLANSET CONTAINS XX SHEETS



CITY OF ST PAUL

EXISTING UTILITY LOCATIONS

THE CONTRACTOR SHALL VERIFY ALL EXISTING UNDERGROUND UTILITY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ALL INPLACE UTILITIES MAY NOT BE SHOWN ON THIS PLAN & THOSE THAT ARE SHOWN, MAY NOT BE SHOWN IN THE EXACT LOCATIONS.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLANSET IS UTILITY QUALITY LEVELS "C" & "D" AS DEFINED IN ASCE "STANDARD GUIDELINE FOR THE DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

GOPHER STATE ONE CALL: 1-800-252-1166

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAs...\Rail\bases\LDD_Marathon-CP\dwg\sh01.dwg
Xrefs:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

____

DATE __________ LIC. NO. __________

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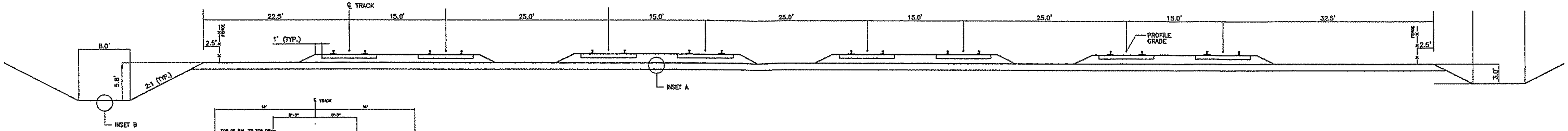
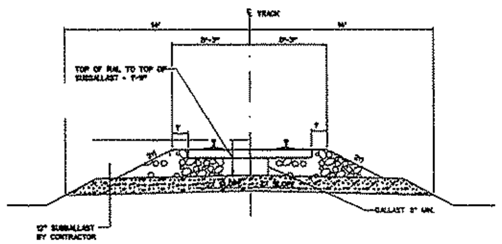
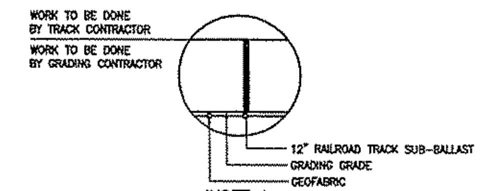


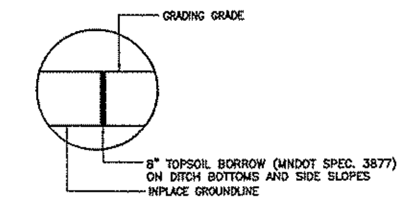
TYPICAL TRACK SECTION
TRACK #x STA. xx TO xx



TYPICAL TRACK SECTION
SCALE: NONE



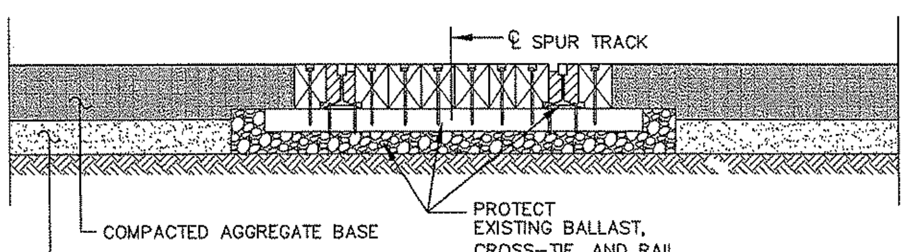
INSET A
SUB-BALLAST



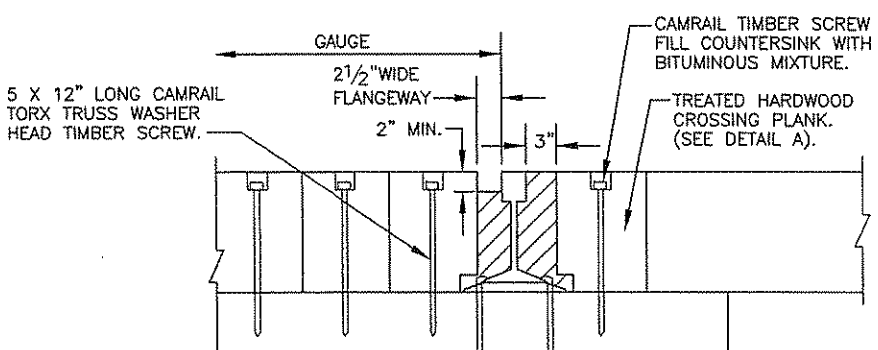
INSET B
TOPSOIL

NOTE: CONTRACTOR SHALL PLACE 3" TOPSOIL AND PEFORM SUBSOILING (MNSOT SPEC. 2105) TO A DEPTH OF 12' FOR MIXING. THEN PLACE THE REMAINING 5" OF TOPSOIL TO GRADING GRADE.

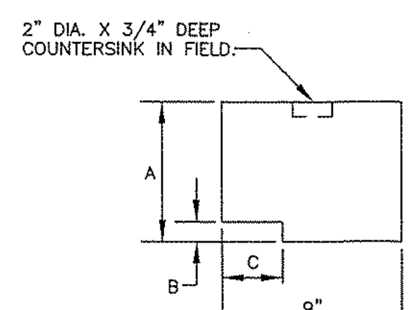
CROSSING PLANK SCHEDULE						
RAIL SECTION	8004 8020 8504 8520	9020	10025 RE	10020	112 RE 112 RE	131 RE 132 RE 136 RE
DIMENSION "A"	5-3/4"	6-1/4"	6-3/4"	7"	7-1/2"	8-1/4"
DIMENSION "B"	1"	1"	1"	1-1/8"	1-1/8"	1-1/4"
DIMENSION "C"	1"	2"	2"-1/2"	3"	3"	3-1/2"
SCREW LENGTH	10-1/2"	10-1/2"	12"	12"	12"	12"



SECTION A-A
NO SCALE



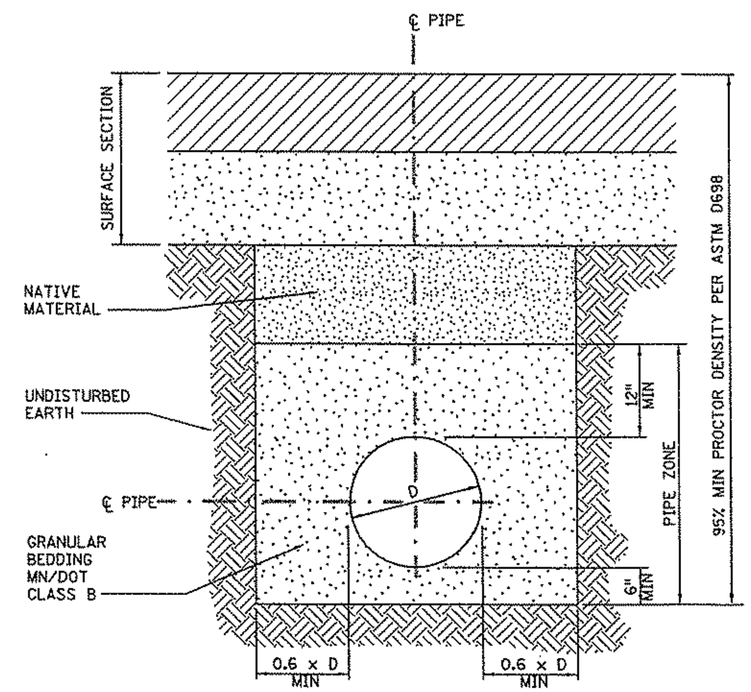
SECTION B-B
NO SCALE



DETAIL A
NO SCALE

NOTES:

DIMENSIONS ARE BASED UPON THE RAIL SECTION (RAIL POUNDAGE) TYPES LISTED IN THE CROSSING PLANK SCHEDULE.



PIPE BACKFILL DETAIL
SCALE: NONE

TRENCH NOTES:

1. UNSTABLE TRENCH MATERIALS AND/OR OVER EXCAVATION OF TRENCH WILL REQUIRE BEDDING FOUNDATION AS SHOWN IN TRENCH SECTION OF THIS SHEET. EXCAVATE UNSUITABLE MATERIALS AS DIRECTED BY THE PROJECT ENGINEER.
2. TRENCH WIDTH SHALL BE KEPT TO A MINIMUM NECESSARY TO INSTALL THE PIPE IN A SAFE MANNER. IN ALL CASES TRENCHES MUST BE OF SUFFICIENT WIDTH TO ALLOW FOR PROPER JOINING OF PIPE AND COMPACTION OF THE BACKFILL MATERIAL ALONG SIDES OF PIPE. MINIMUM TRENCH WIDTH, IN THE PIPE ZONE, MUST PROVIDE A CLEAN WORKING SPACE OF 12" ON EACH SIDE OF THE BARREL.
3. PLACE ALL PIPE BEDDING MATERIALS IN A UNIFORM MANNER WITH THOROUGHLY COMPACTED LIFTS NOT TO EXCEED 6" UP TO 12" ABOVE TOP OF PIPE. ALL BACKFILL MATERIAL SHALL ALSO BE THOROUGHLY COMPACTED.
4. BACKFILL TRENCH ABOVE THE PIPE ZONE TO THE SPECIFIED GRADE, OR AS SHOWN ON THE PLANS, IN LIFTS OF 6 INCH LOOSE TO 2 FEET LOOSE DEPTH DEPENDING ON COMPACTION EQUIPMENT AND MATERIALS.
5. TRENCHING METHODS SHALL COMPLY WITH OSHA REQUIREMENTS.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAsn. ...01\Railbases\LDD_Marathon-CP\dwg\sht02.dwg
Xrefs:

NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK DRAWN PJW CHECKED JEH

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DATE ______________ LIC. NO. ______________

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MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
TYPICAL SECTIONS/DETAILS

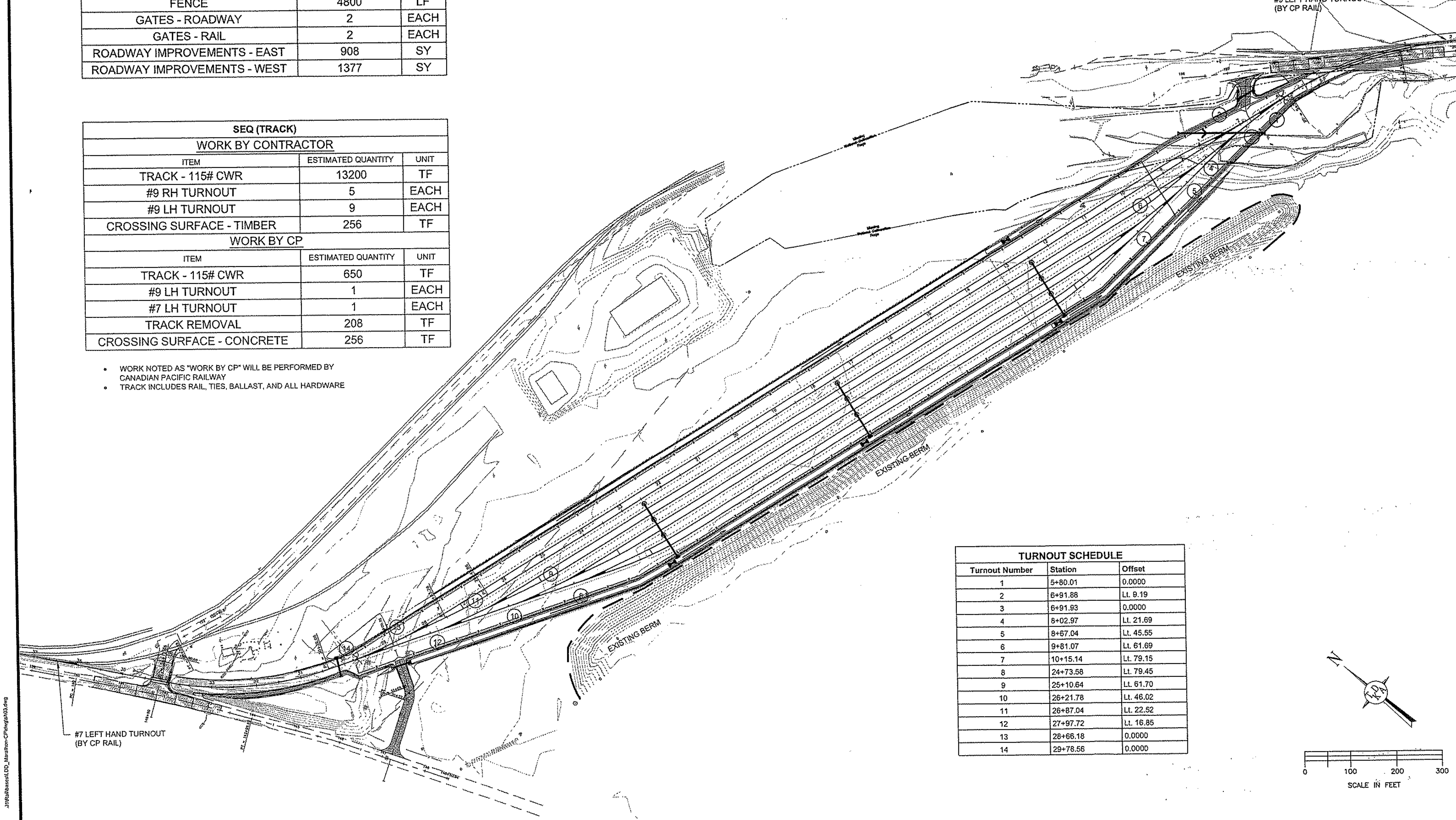
SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001
RECORD NO.

SEQ (GRADING)		
ITEM	ESTIMATED QUANTITY	UNIT
FENCE	4800	LF
GATES - ROADWAY	2	EACH
GATES - RAIL	2	EACH
ROADWAY IMPROVEMENTS - EAST	908	SY
ROADWAY IMPROVEMENTS - WEST	1377	SY

SEQ (TRACK)		
WORK BY CONTRACTOR		
ITEM	ESTIMATED QUANTITY	UNIT
TRACK - 115# CWR	13200	TF
#9 RH TURNOUT	5	EACH
#9 LH TURNOUT	9	EACH
CROSSING SURFACE - TIMBER	256	TF
WORK BY CP		
ITEM	ESTIMATED QUANTITY	UNIT
TRACK - 115# CWR	650	TF
#9 LH TURNOUT	1	EACH
#7 LH TURNOUT	1	EACH
TRACK REMOVAL	208	TF
CROSSING SURFACE - CONCRETE	256	TF

- WORK NOTED AS "WORK BY CP" WILL BE PERFORMED BY CANADIAN PACIFIC RAILWAY
- TRACK INCLUDES RAIL, TIES, BALLAST, AND ALL HARDWARE



TURNOUT SCHEDULE		
Turnout Number	Station	Offset
1	5+80.01	0.0000
2	6+91.88	Lt. 9.19
3	6+91.93	0.0000
4	8+02.97	Lt. 21.69
5	8+67.04	Lt. 45.55
6	9+81.07	Lt. 61.69
7	10+15.14	Lt. 79.15
8	24+73.58	Lt. 79.45
9	25+10.64	Lt. 61.70
10	26+21.78	Lt. 46.02
11	26+87.04	Lt. 22.52
12	27+97.72	Lt. 16.85
13	28+66.18	0.0000
14	29+78.56	0.0000

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAs.
Xrefs:, trackbase
J:\1\Railbases\LDD_Marathon-CP\dwg\sh03.dwg

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MARATHON

MARATHON PETROLEUM
ST. PAUL PARK, MN

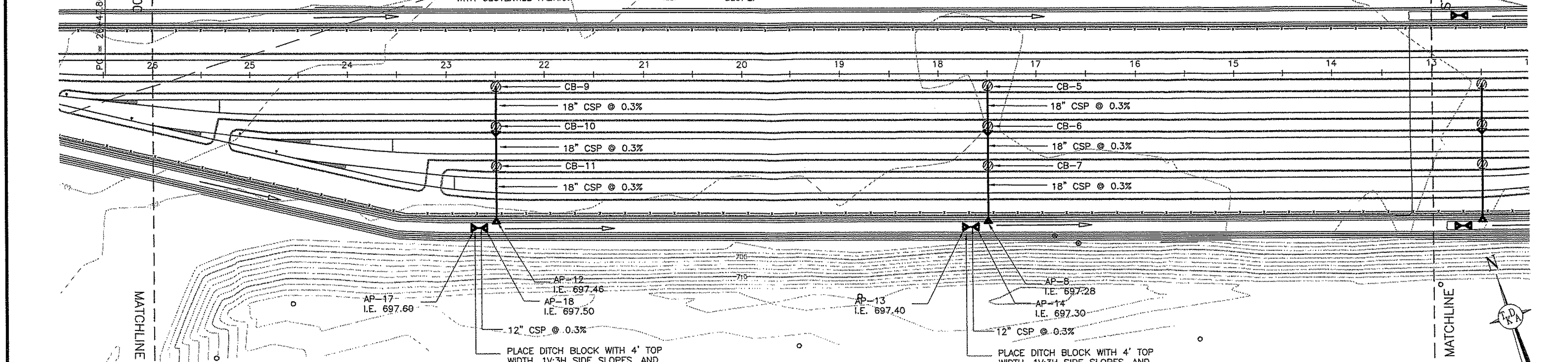
ST PAUL RAIL YARD
SITE PLAN

SHEET NO. XX OF XX SHEETS

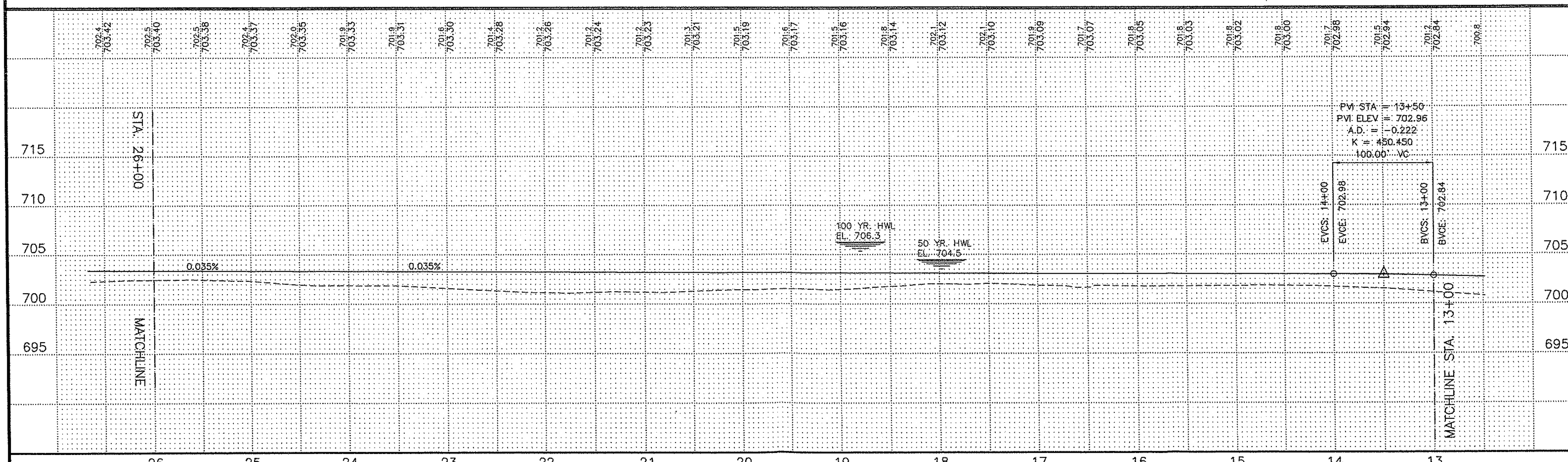
PROJECT NO. 13518.001

RECORD NO.

NOTES
1. ALL CSP SHALL BE 12 GUAGE CORRUGATED STEEL PIPE MEETING E-80 LIVE LOADING. REFER TO DETAILS FOR SEWER TRENCH AND BACKFILL REQUIREMENTS.
2. ALL CATCH BASINS SHALL BE 48" PRECAST CONCRETE PER MN/DOT STANDARD PLATE 4005 AND 4006.
3. ALL CASTINGS SHALL BE NEENAH R-2501-HD WITH TYPE C GRATE.
4. ALL APRONS SHALL BE CORRUGATED STEEL PER MN/DOT STANDARD PLATE 3123.
5. INSTALL MN/DOT CLASS II (SPEC. 3601) RIPRAP AT ALL APRONS PER MN/DOT STANDARD PLATE 3134, WITH GEOTEXTILE FABRIC.
6. ALL DISTRUBRED AREAS SHALL BE RE-ESTABLISHED WITH MN/DOT SEED MIXTURE 250 (70 LBS/AC), STRAW BLANKET (CAT. 2), AND 22-5-10 FERTILIZER (350 LBS/AC).
7. ALL FILL SLOPES SHALL HAVE MACHINE SLICED SILT FENCE (MN/DOT SPEC. 2573) INSTALLED AT TOE OF SLOPE.
8. INSTALL FILTER LOG (TYPE STRAW BIOROLL) (MN/DOT SPEC 2573) EVERY 200' IN DITCH BOTTOMS.
9. INSTALL CULVERT MARKER AT ALL APRONS PER MN/DOT STANDARDS PLATE 8150.



	CB-9	CB-10	CB-11	CB-5	CB-6	CB-7
T.O.C	700.86	700.86	700.86	700.68	700.68	700.68
I.E. - NORTH	--	697.74	697.62	--	697.56	697.44
I.E. - SOUTH	697.86	697.74	697.62	697.68	697.56	697.44



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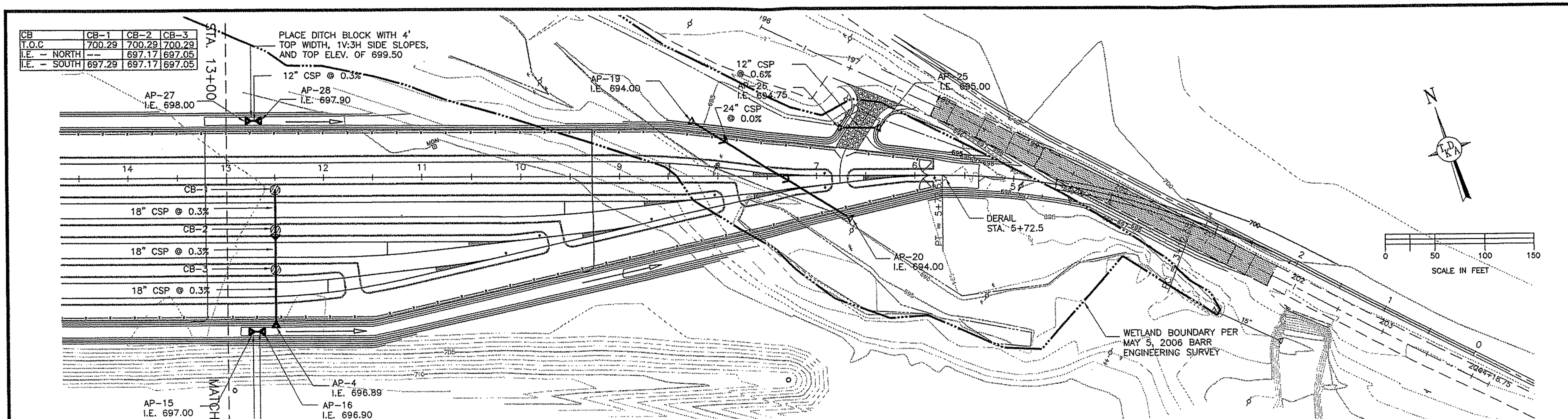
MARATHON
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
YARD
PLAN AND PROFILE
SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001
RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\Marathon\
Xrefs:, trackbase, protrack2
J:\Railbases\LDD_Marathon-CP\dwg\pp02.dwg

CB	CB-1	CB-2	CB-3
T.O.C	700.29	700.29	700.29
I.E. – NORTH	--	697.17	697.05
I.E. – SOUTH	697.29	697.17	697.05



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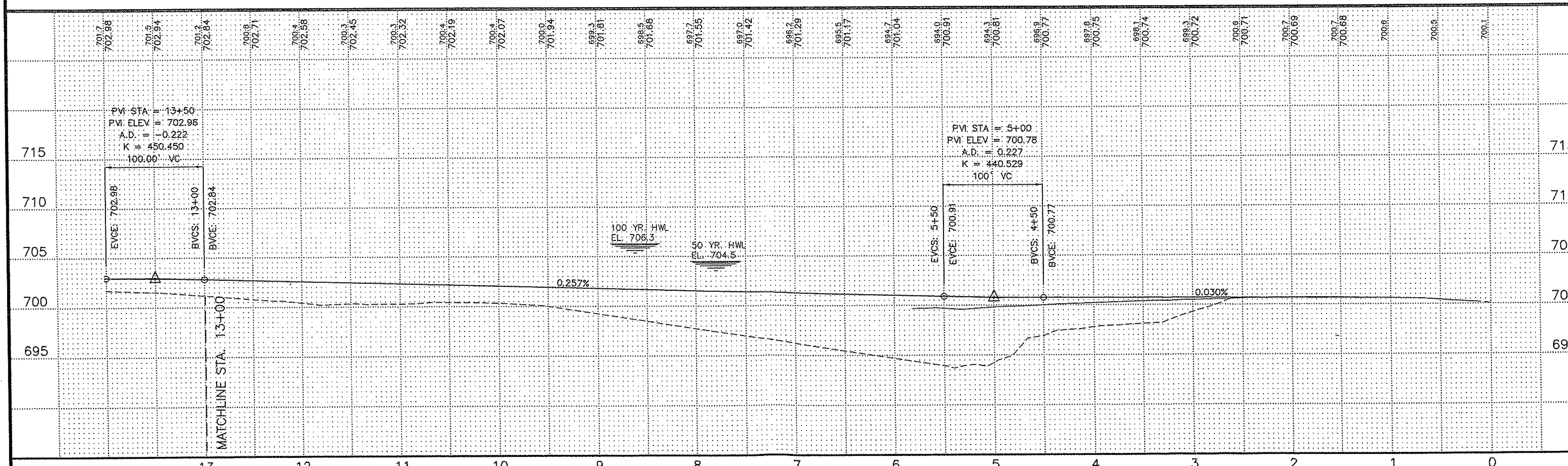

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MARATHON
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
EAST YARD LEAD
PLAN AND PROFILE
SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001
RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAsr...J01\Railbases\LDD_Marathon-CP\dwg\pp01.dwg
Xrefs:, trackbase, protrack2

NOTES

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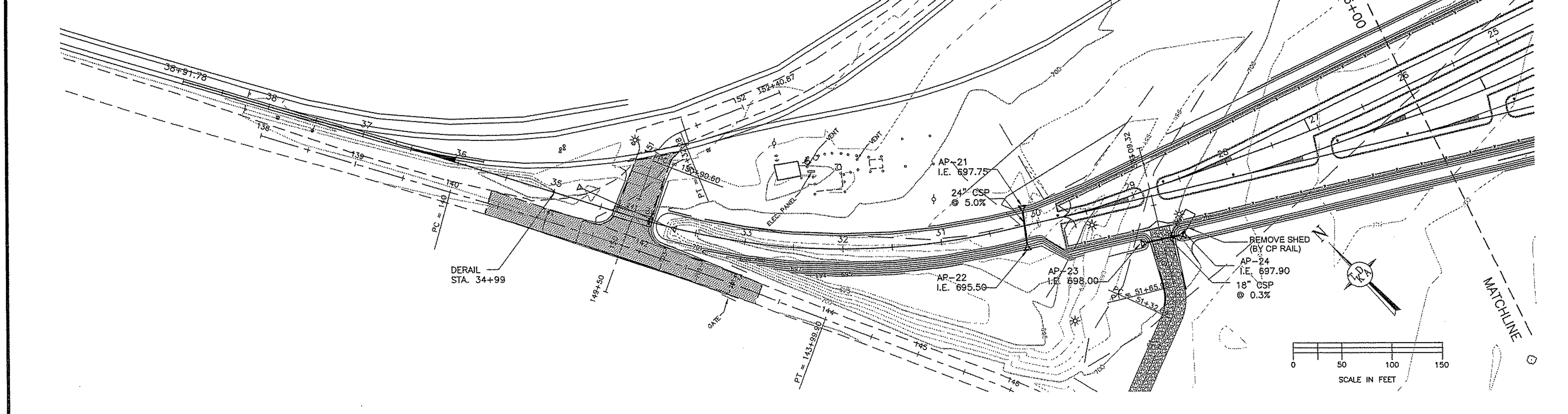

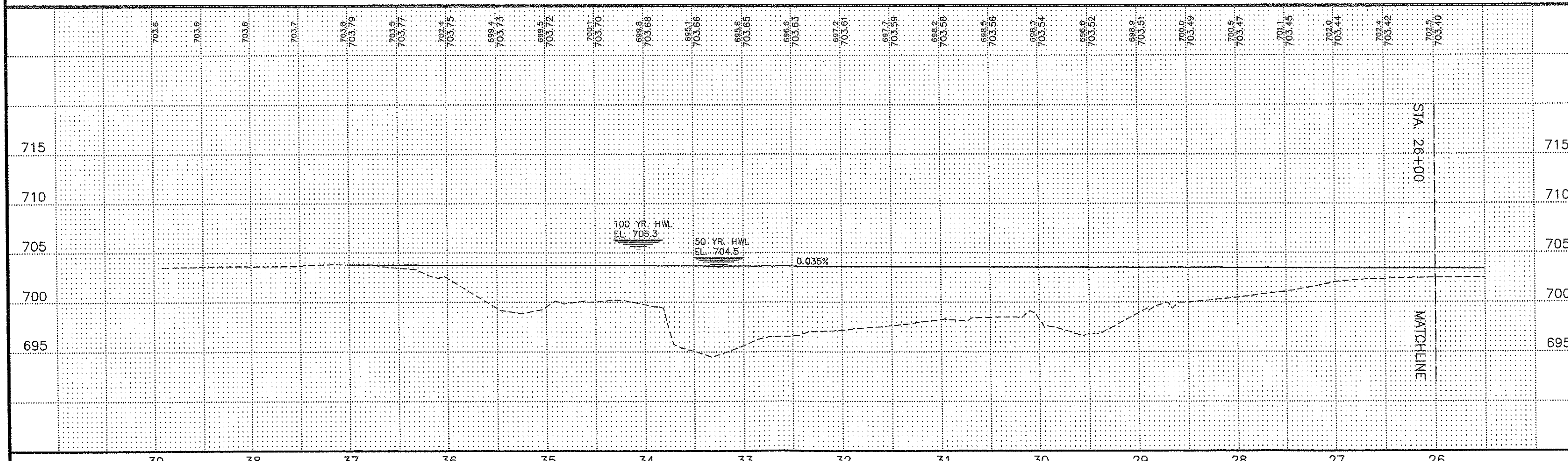

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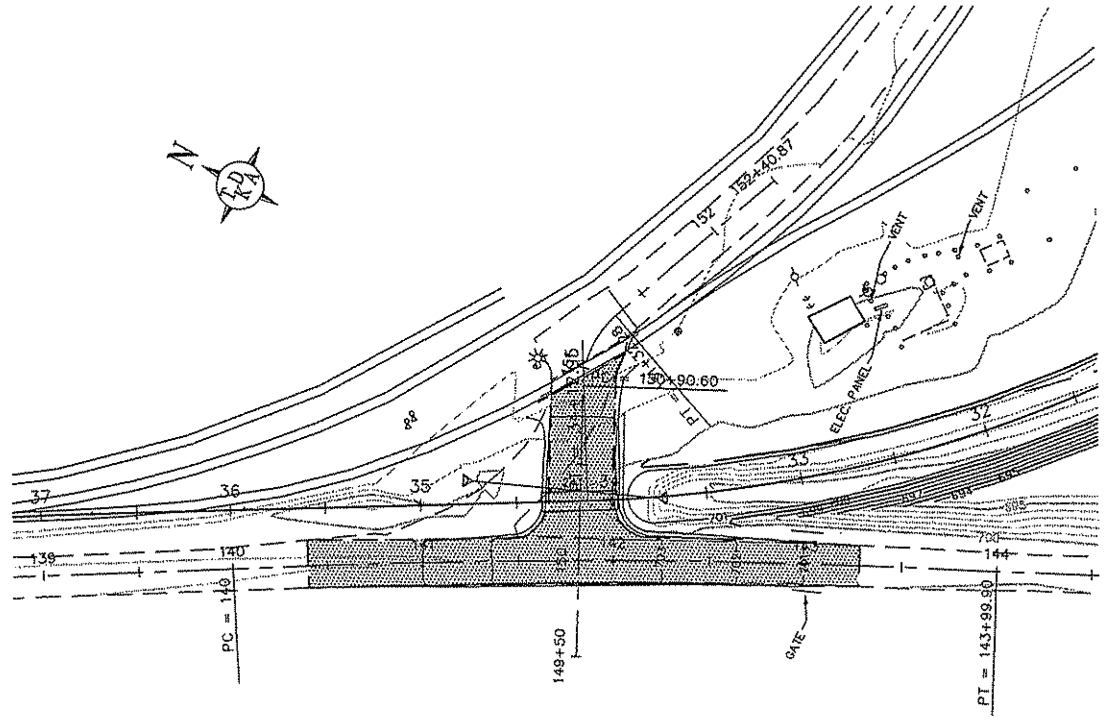
MARATHON PETROLEUM
ST. PAUL PARK, MN

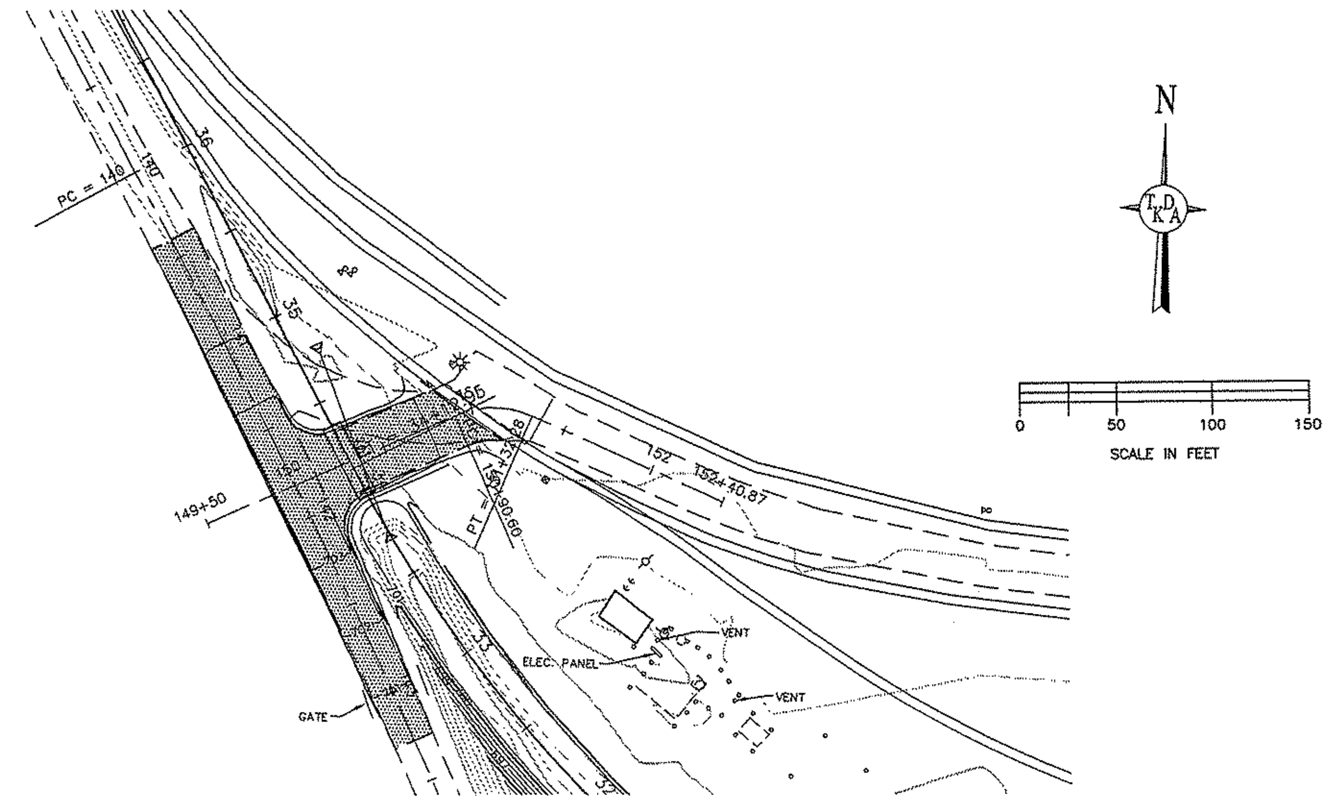
ST PAUL RAIL YARD
WEST YARD LEAD
PLAN AND PROFILE
SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001
RECORD NO.

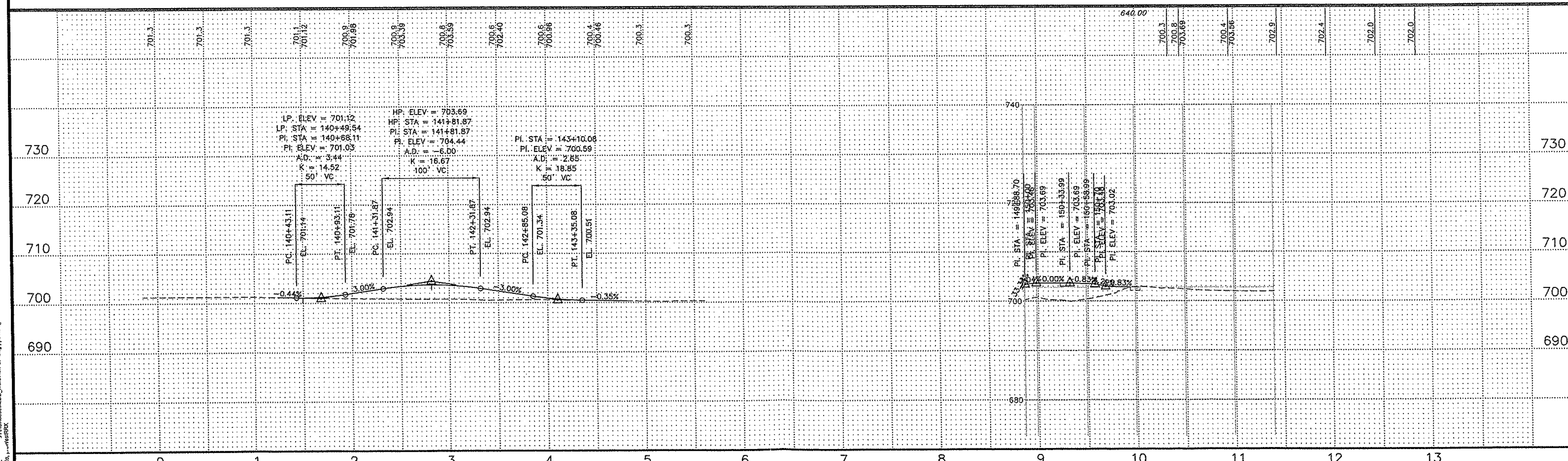
FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\Marathon\s
Xrefs:, trackbase, protrack2
..\01\Rail\bases\LOD_Marathon-CP\dwg\pp03.dwg



PIG'S EYE LAKE ROAD



WEST RAILROAD CROSSING



FIELD BOOK:
Plot Date: 03/12/2008

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DESIGNED TRK | DRAWN PJW | CHECKED JEH

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MARATHON PETROLEUM
ST. PAUL PARK, MN

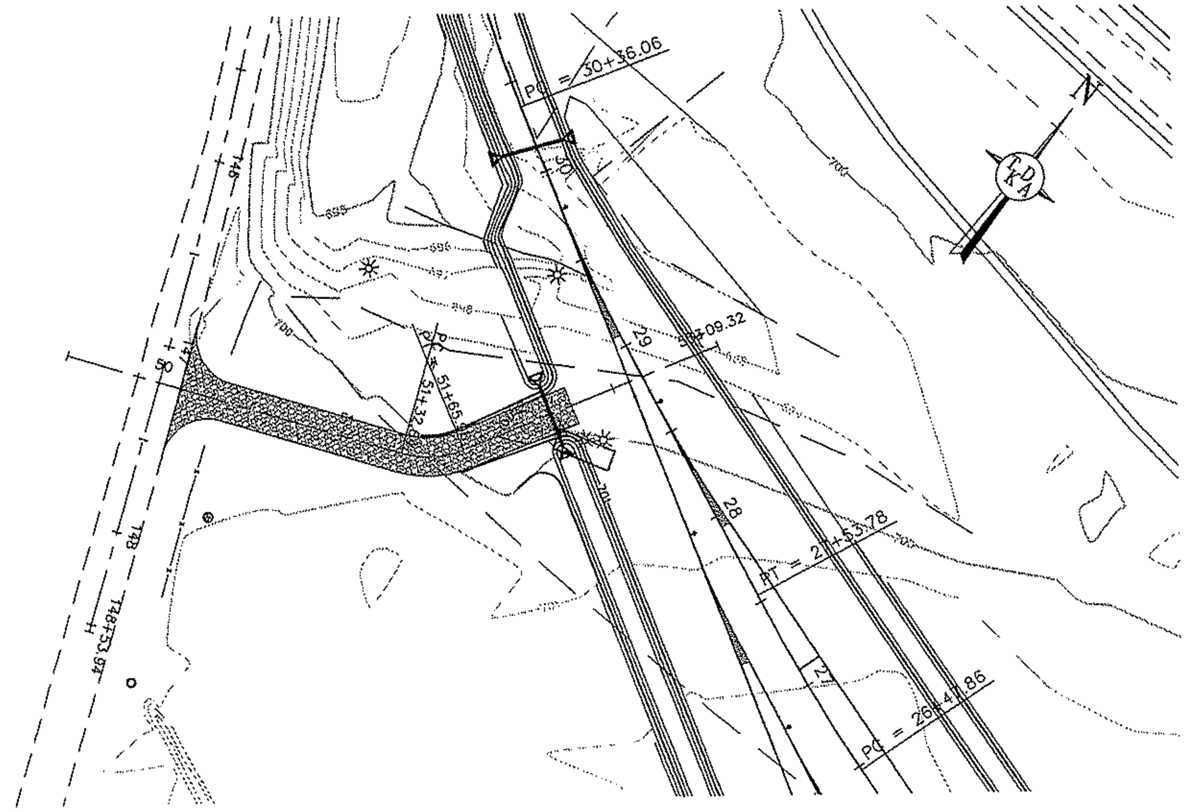
PIG'S EYE LAKE ROAD
WEST RAILROAD CROSSING

PLAN AND PROFILE

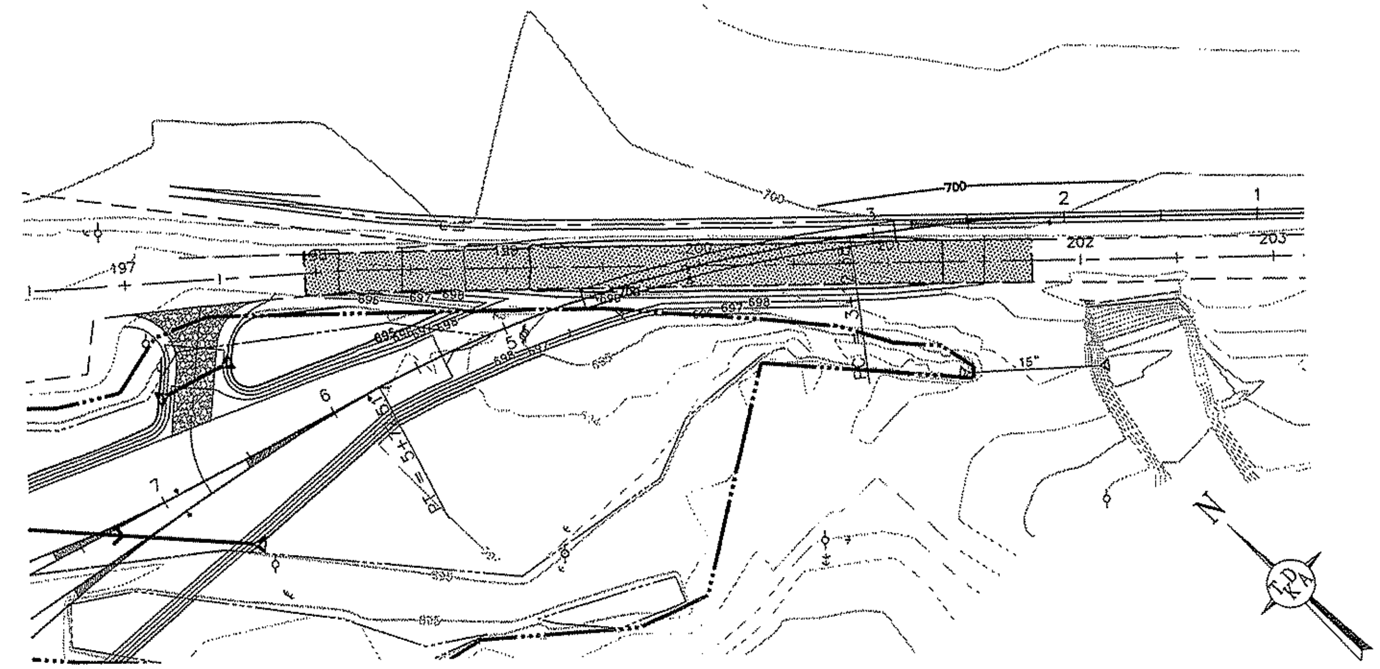
SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001

RECORD NO.



MARATHON YARD ACCESS ROAD



EAST RAILROAD CROSSING

0 50 100 150
SCALE IN FEET

NO.	DATE	BY	DESCRIPTION OF REVISIONS

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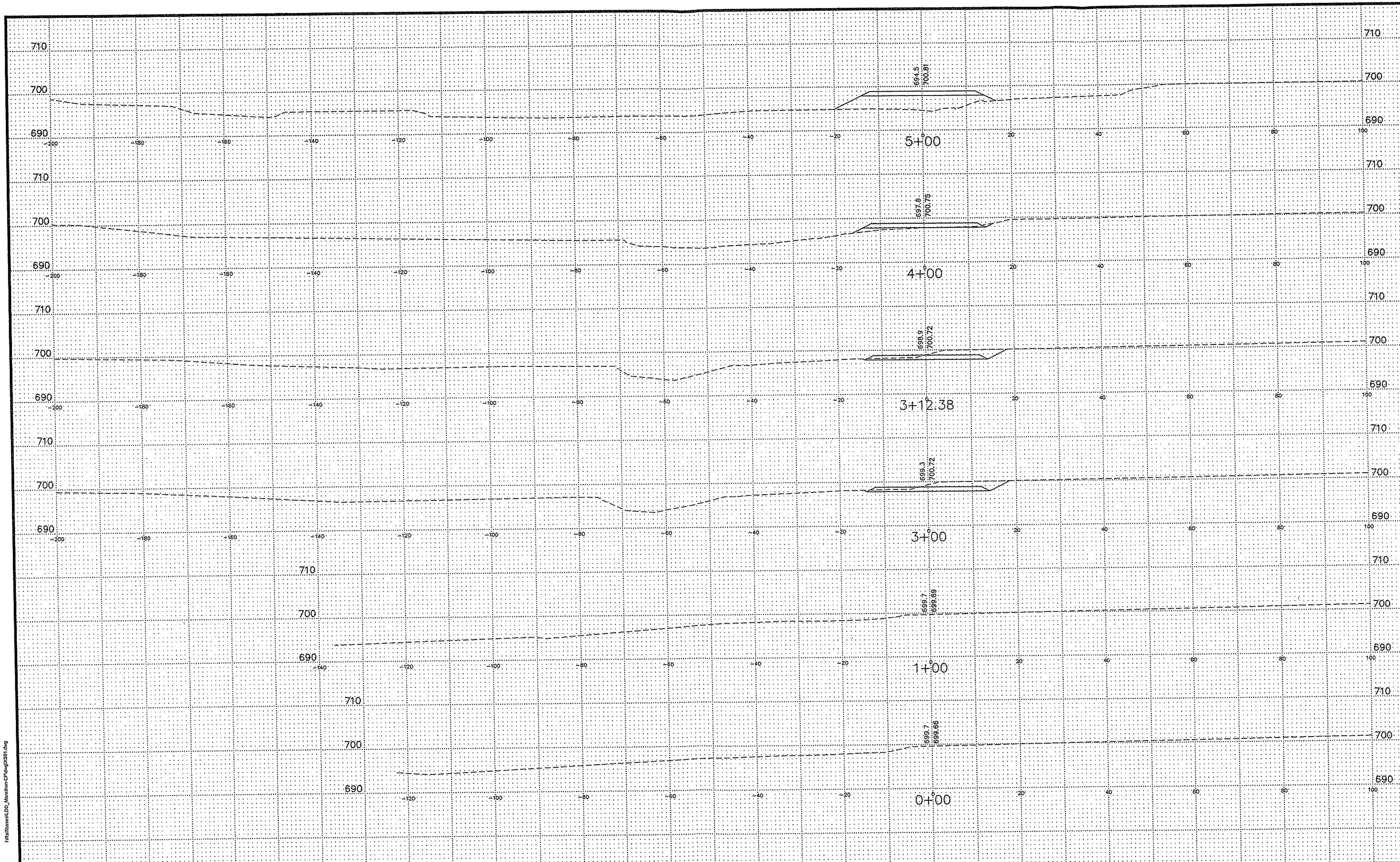
MARATHON PETROLEUM
ST. PAUL PARK, MN

MARATHON YARD ACCESS ROAD
EAST RAILROAD CROSSING
PLAN AND PROFILE
SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001
RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\Marathon\...\Railbases\LDD_Marathon-CP\dwg\pp05.dwg
Xrefs: trackbase, proEastRRX, proCLRailYardAccess



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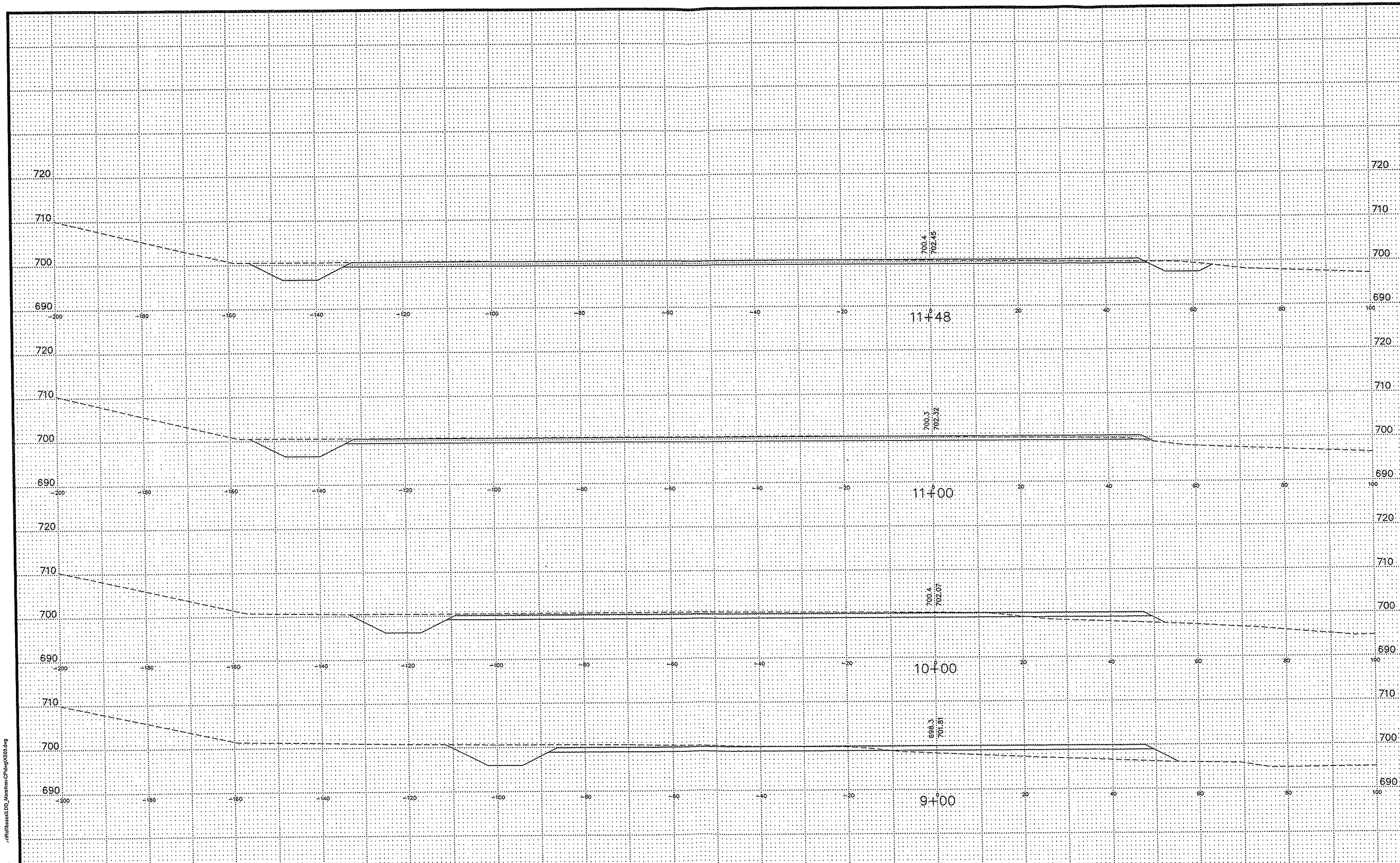
MARATHON
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001
RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-mt\MarathonAst\...\Rail\bases\LDD_Marathon-CP\dwg\XS01.dwg
Xrefs: xsec-yard



FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAst...\Rail\base\LOD_Marathon-CP\dwg\XS03.dwg
Xrefs: , xsec-yard

NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED: TRK
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MARATHON

MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

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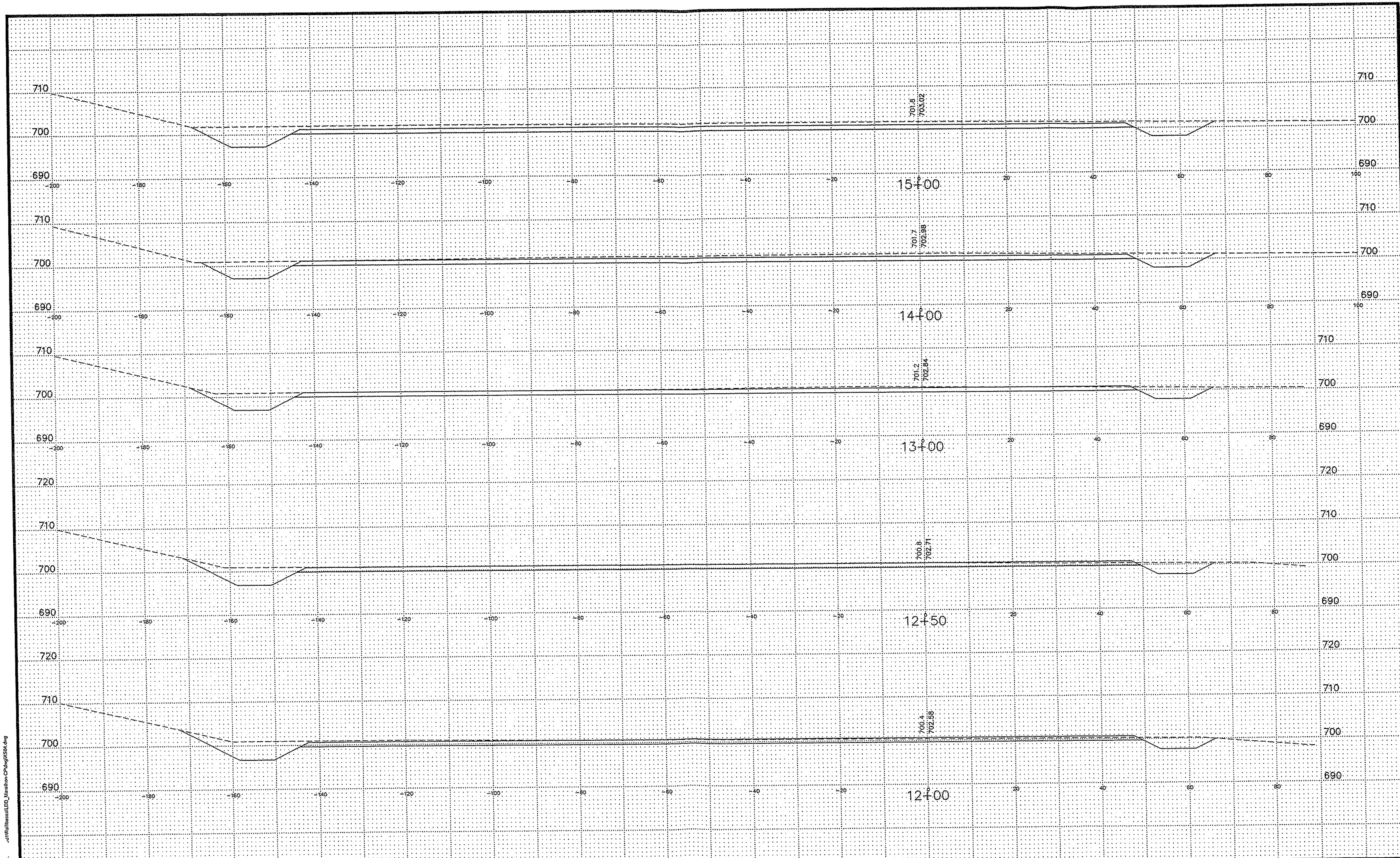
RECORD NO.



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ST. PAUL PARK, MN

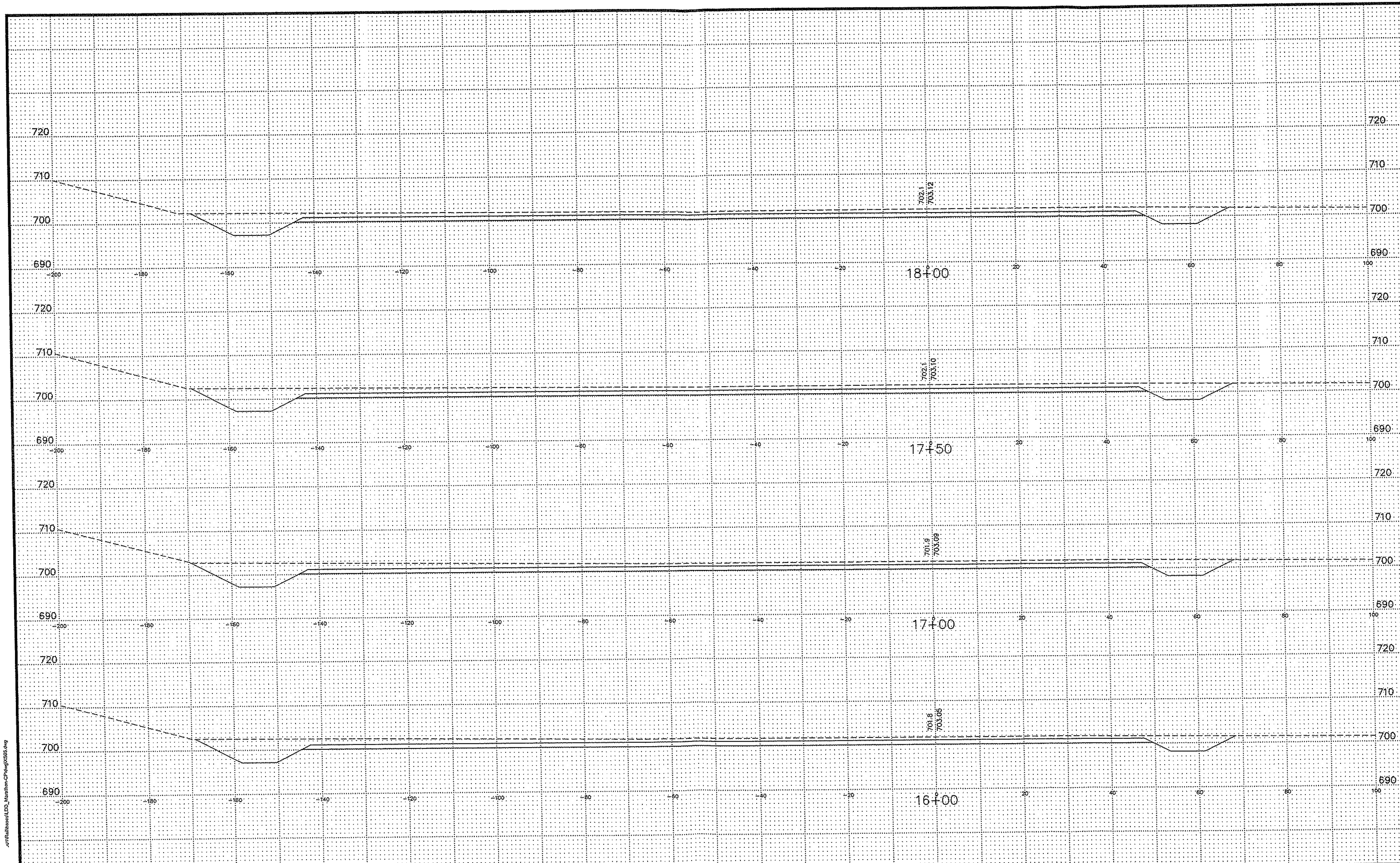
ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO. 13518.001

RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-mt\MarathonAsh. ...J\Rail\bases\LDD_Marathon-CP\dwg\XS04.dwg
Xrefs:, xsec-yard



FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAs...\11Railbases\LDD_Marathon-CP\dwg\XS05.dwg
Xrefs:, xsec-yard

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DRAWN PJW
CHECKED JEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE ______________ LIC. NO. ______________

TKDA
ENGINEERS▪ARCHITECTS▪PLANNERS

MARATHON

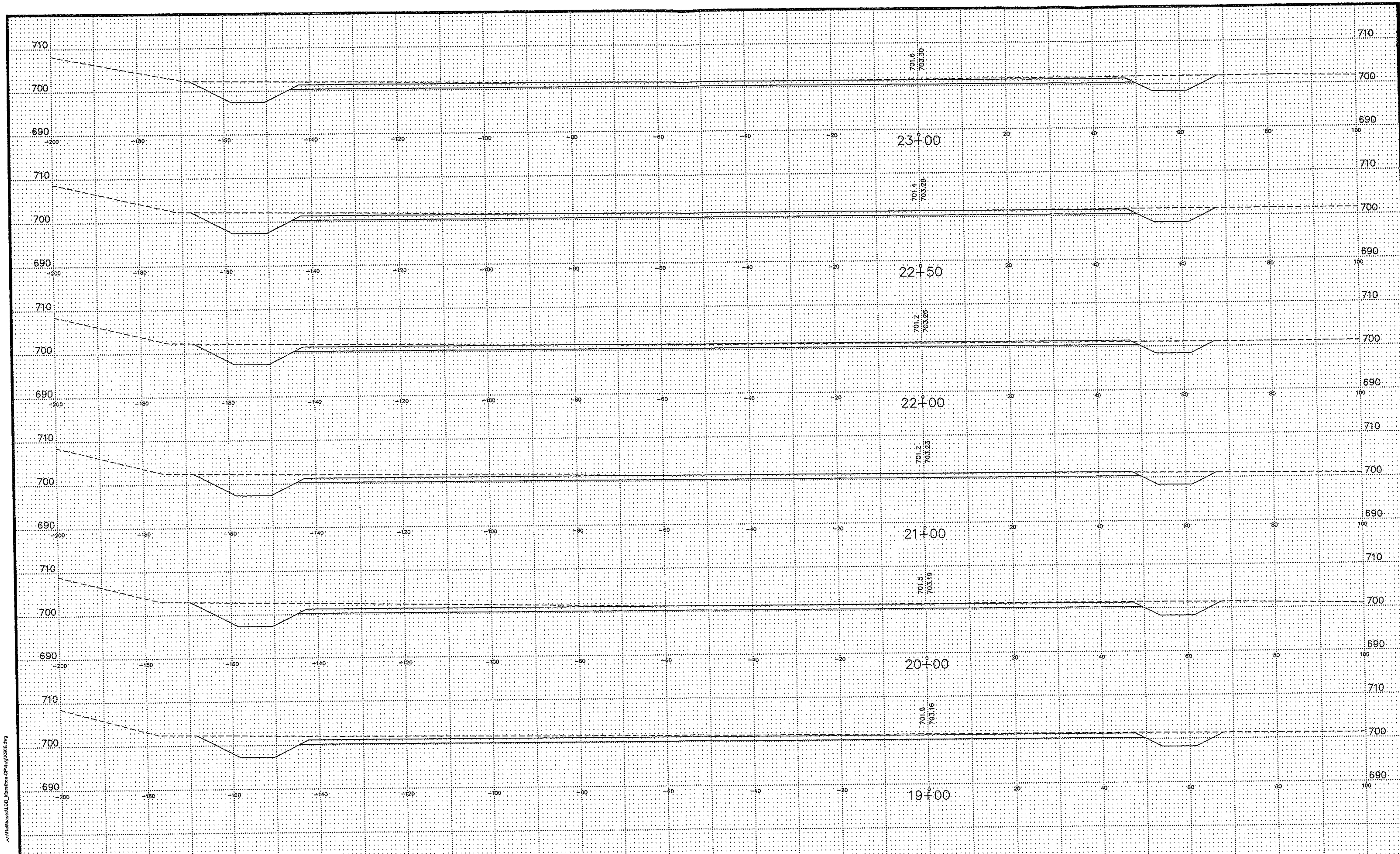
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.



NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK
DRAWN PJW
CHECKED JEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE ______________ LIC. NO. ______________

TKDA
ENGINEERS-ARCHITECTS-PLANNERS

MARATHON
MARATHON PETROLEUM
ST. PAUL PARK, MN

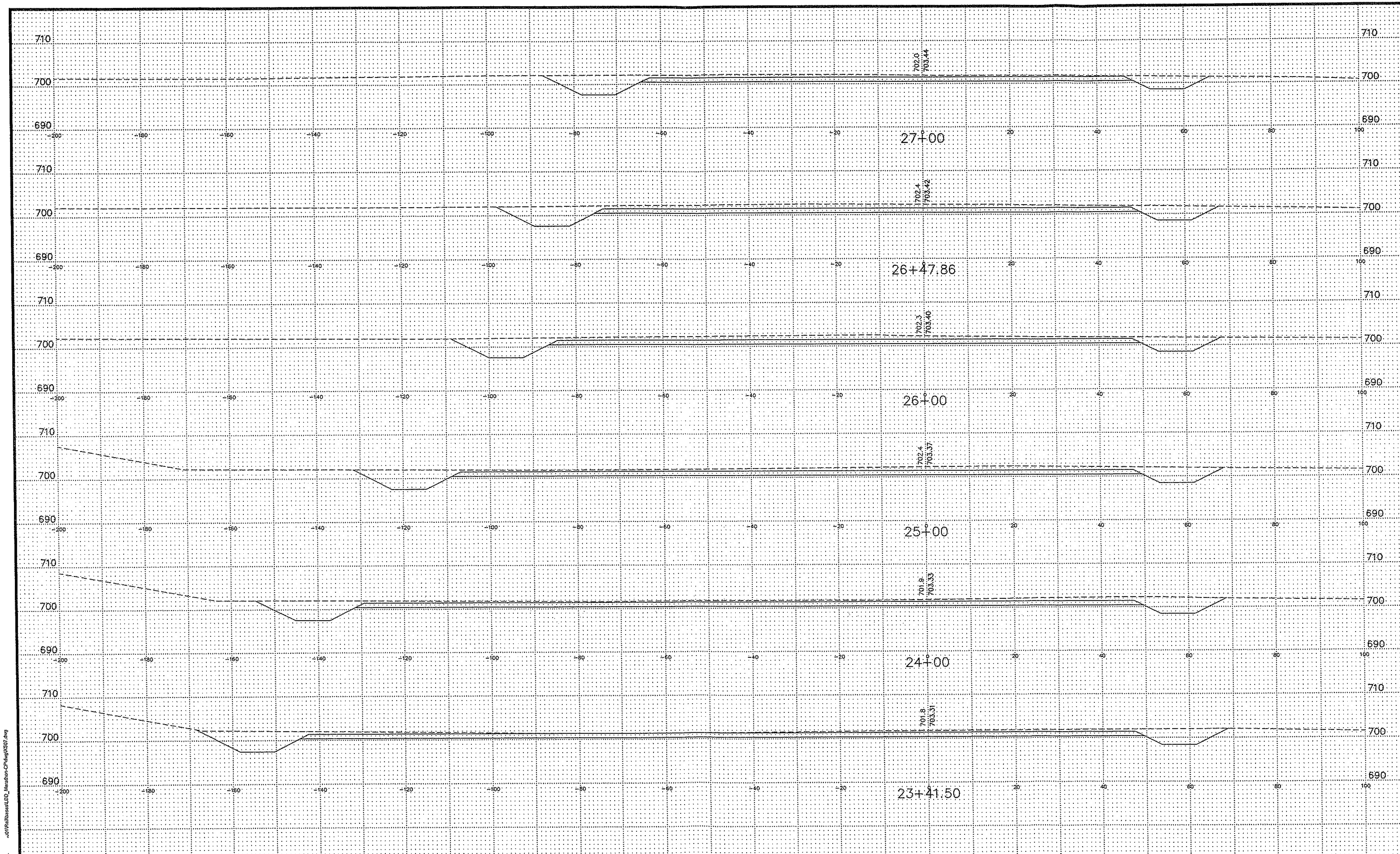
ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonA...\Rail\bases\LDD_Marathon-CP\dwg\XS06.dwg
Xrefs: xsec-yard



FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAs...\J01\Rail\bases\LDD_Marathon-CP\dwg\XS07.dwg
Xrefs:, xsec-yard

NO.	DATE	BY	DESCRIPTION OF REVISIONS

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DATE ____________ LIC. NO. ____________

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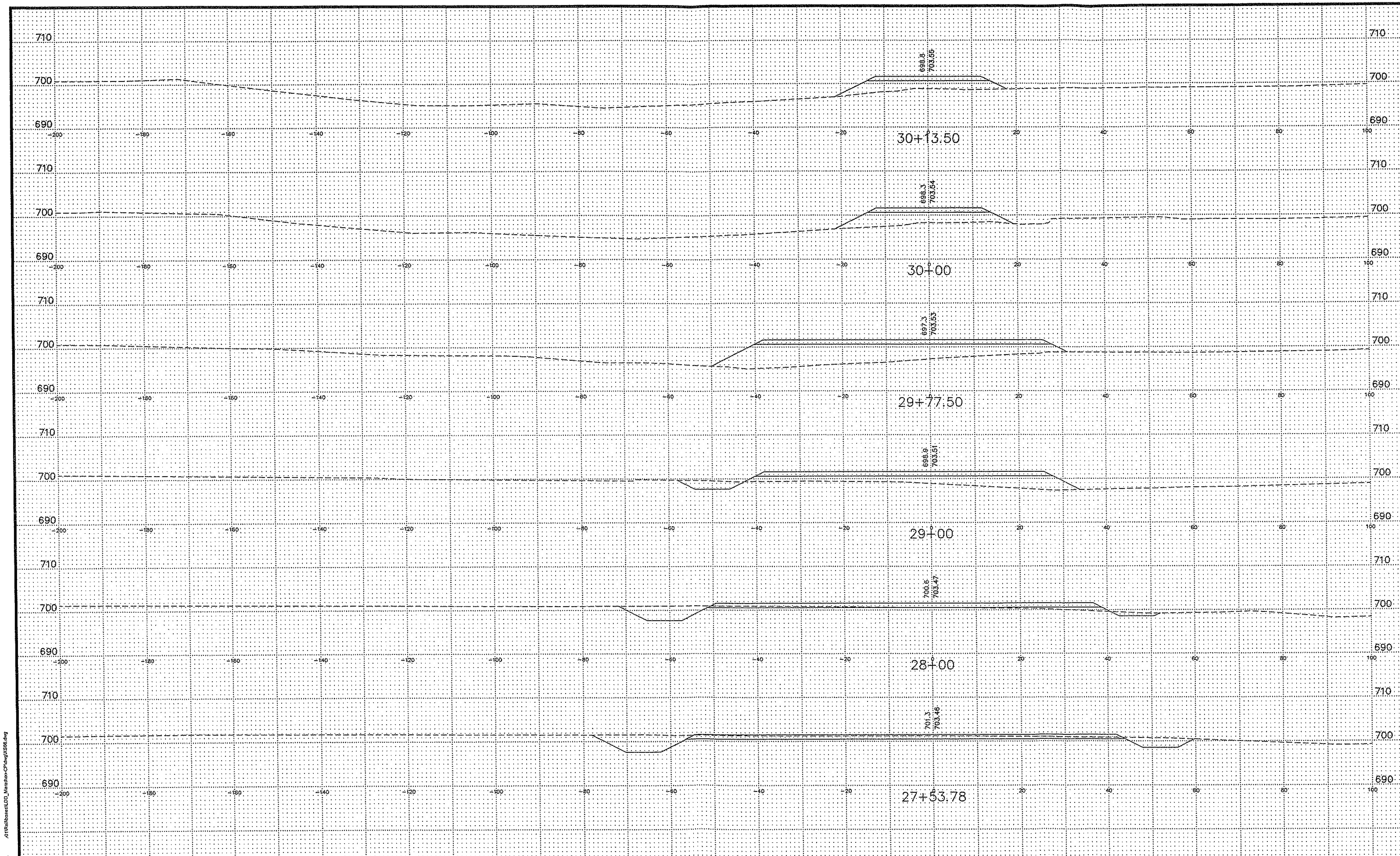
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.



FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\Marathon\As.
Xrefs:, xsec-yard
.01\Railbases\LDD_Marathon-CP\dwg\XS08.dwg

NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK DRAWN PJW
CHECKED JEH

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DATE ________ LIC. NO. ________

TKDA
ENGINEERS▪ARCHITECTS▪PLANNERS

MARATHON

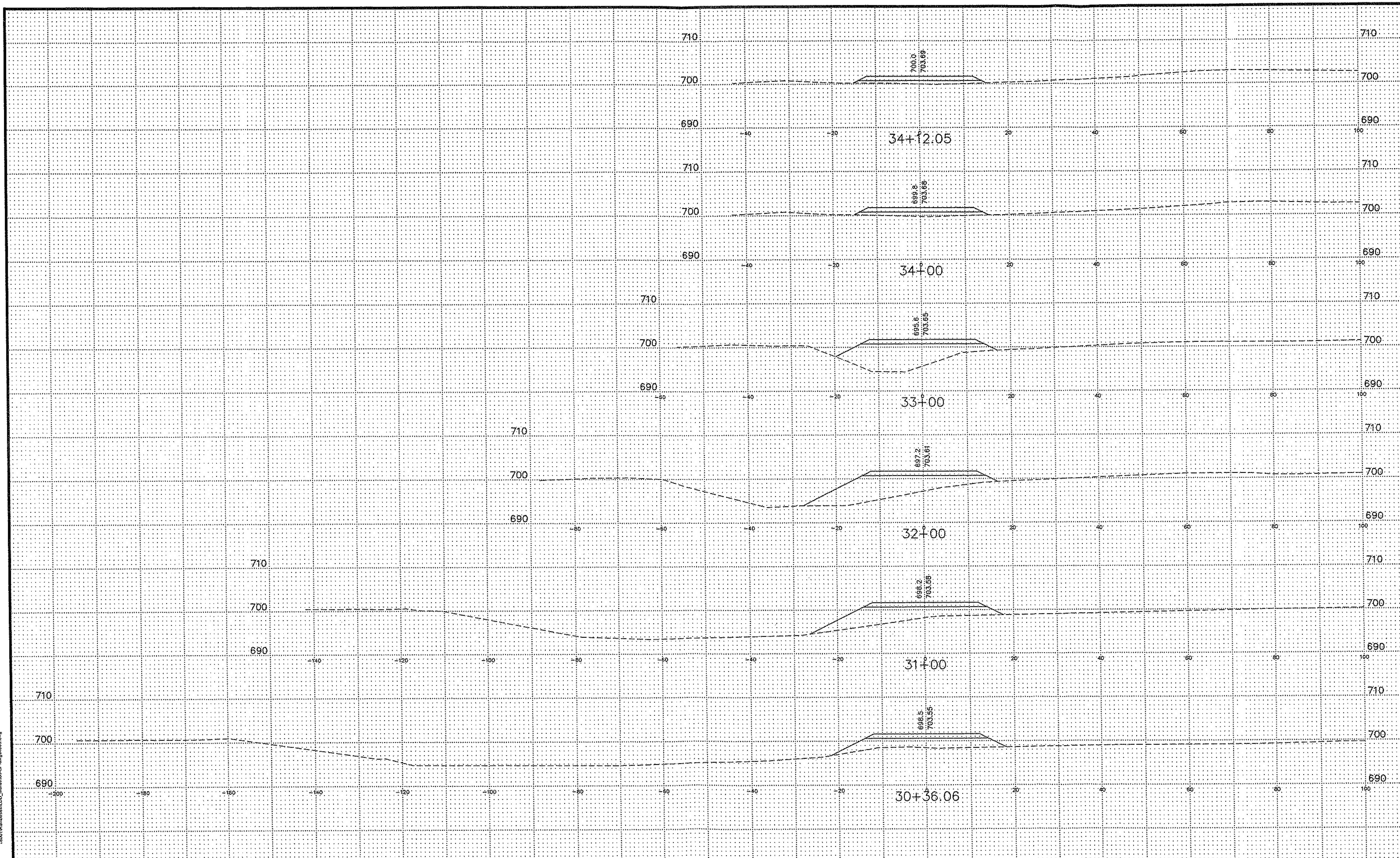
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.



FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\Marathon-...\Rail\bases\LDD_Marathon-CP\dwg\XS09.dwg
Xrefs: xsec-yard

NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK
DRAWN PJW
CHECKED JEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE ____________ LIC. NO. ____________

TKDA
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MARATHON

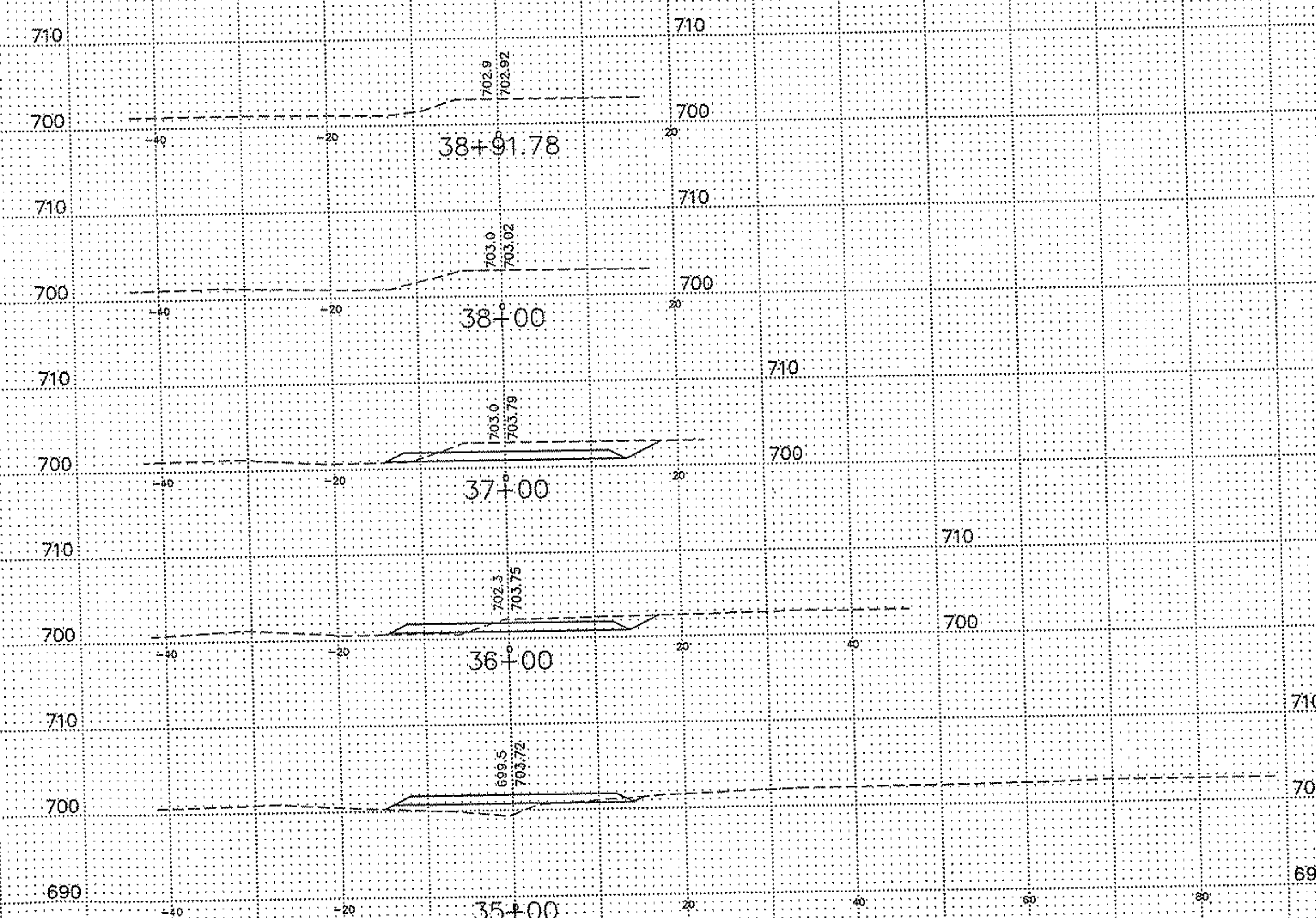
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.



NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK
DRAWN PJW
CHECKED JEH

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DATE ____________ LIC. NO. ____________

TKDA
ENGINEERS•ARCHITECTS•PLANNERS

MARATHON

MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
CROSS SECTIONS

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.

FIELD BOOK:
Plot Date: 03/12/2008
Drawing name: K:\g-m\MarathonAs... J001\RailBases\LDD_Marathon-CP\dwg\XS10.dwg
Xrefs: xsec-yard

Appendix D

Historical Aerial Imagery

Barr Footer: Date: 4/17/2008 10:24:07 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_1937.mxd User: ksw

1937 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

1937 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

1940 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

1940 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

1953 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

1953 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/17/2008 10:40:01 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_1953.mxd User: ksw

1966 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

1966 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/17/2008 10:45:30 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_1980.mxd User: ksw

1980 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

1980 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

1991 Aerial Imagery

Existing Railroad

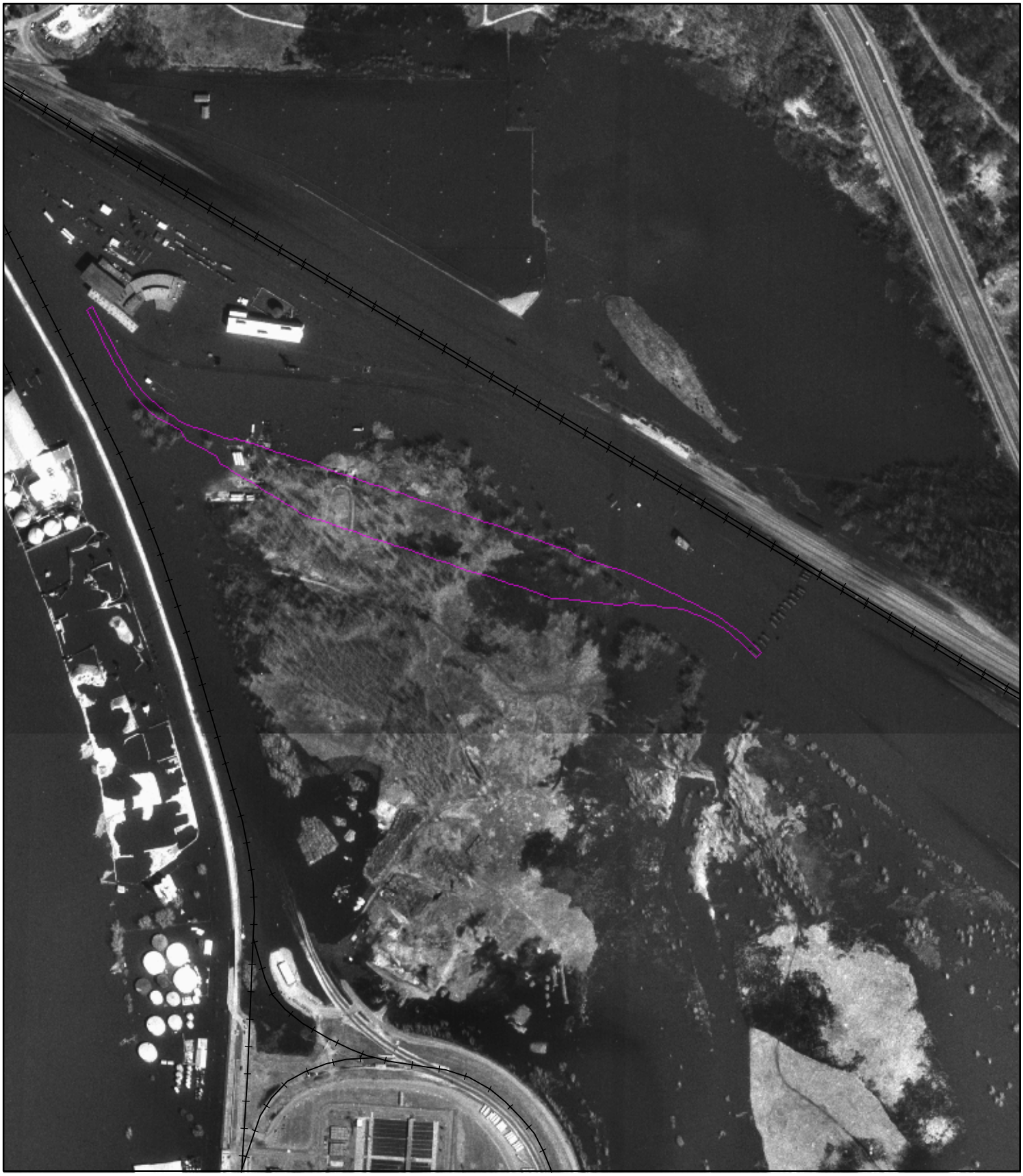
Project Area

600 300 0 600

Feet

Appendix D

1991 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota



1997 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

1997 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/17/2008 10:53:59 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_1997.mxd User: ksw

2000 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

2000 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/17/2008 10:56:24 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_2000.mxd User: ksw

2002 Aerial Imagery

Barr Footer: Date: 4/17/2008 10:58:11 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_2002.mxd User: ksw

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

2002 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/17/2008 11:00:01 AM File: I:\Projects\23\82\388\Maps\Wetlands\WRP\AppD_2003.mxd User: ksw

2003 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

2003 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Barr Footer: Date: 4/17/2008 11:03:26 AM File: I:\Projects\23\82\3888\Maps\Wetlands\WRP\AppD_2004.mxd User: ksw

2004 Aerial Imagery

Existing Railroad

Project Area

600 300 0 600

Feet

Appendix D

2004 AERIAL PHOTOGRAPH
Pig's Eye Site
St. Paul, Minnesota

Appendix E

Wetland Data Forms

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: Wetland A
Transect ID:
Plot ID: SB-1
Circular 39 Type: 2/3/1
Cowardin: PEMB/C/FOA

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Phalaris arundinacea*	80	H	FACW+
2.	*Populus deltoides*	5	S/S	FAC+
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

	Other Plant Species	% Cover	Stratum	Indicator
1.	*Typha species*	10	H	OBL
2.	*Urtica dioica*	5	H	FAC+
3.	*Cirsium arvense*	3	H	FACU
4.	*Nepeta cataria*	2	H	FAC-
5.				
6.				
7.				
8.				
9.				
10.				

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks:

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: 16 (in.)
- Depth to saturated soil: 9 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☑ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR2/1			sandy muck
6-12		10YR5/3	5YR4/6	10%	sand (sediment) w/gravel
12-31		10YR3/1			mucky clay

Hydric Soil Indicators:

- ☐ Histosol
- ☑ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☑ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:
The 6-12 inch layer indicates soils are disturbed.

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☑	☐
Wetland hydrology present?	☑	☐
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☑ No ☐

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: Wetland A-upland
Transect ID:
Plot ID: SB-2
Circular 39 Type:
Cowardin:

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Centaurea biebersteinii*	40	H	UPL
2.	*Phalaris arundinacea*	30	H	FACW+
3.	*Nepeta cataria*	20	H	FAC-
4.	*Populus deltoides*	10	S/S	FAC+
5.				
6.				
7.				
8.				
9.				
10.				

	Other Plant Species	% Cover	Stratum	Indicator
1.	*Cirsium arvense*	10	H	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 50

Remarks:

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: None (in.)
- Depth to saturated soil: None (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR4/3	10YR4/4		sandy loam w/gravel
12+					rock refusal

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☐ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☐	☑
Wetland hydrology present?	☐	☑
Hydric soils present?	☐	☑

Is this sampling point within a wetland? Yes ☐ No ☑

Remarks:

Wetland A-upland

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: SB-3
Transect ID:
Plot ID: SB-3
Circular 39 Type:
Cowardin:

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Populus deltoides*	10	S/S	FAC+
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks:
bare soil recently graded

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: <1 (in.)
- Depth to free water in pit: 0 (in.)
- Depth to saturated soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☑ Inundated
- ☑ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR4/2	10YR5/6	10%	sandy clay
6+					rock refusal

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☑	☐
Wetland hydrology present?	☑	☐
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☐ No ☐

Remarks:

This is small area (10 ft long x 3 ft wide) was recently graded allowing a pocket of 1/2 inch thickness of ice two feet upslope from Wetland A between the berm and Wetland A. This area had wetland characteristics at the time of the site visit, however, it is likely that water flows downslope into Wetland A during the growing season, rather than ponding for a long duration. An additional site visit during the growing season is recommended to verify whether it is wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: SB-4
Transect ID:
Plot ID: SB-4
Circular 39 Type:
Cowardin:

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Populus deltoides*	10	S/S	FAC+
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks:
bare soil recently graded

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: <1 (in.)
- Depth to free water in pit: 0 (in.)
- Depth to saturated soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☑ Inundated
- ☑ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR4/2	10YR5/6	10%	clay

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☑	☐
Wetland hydrology present?	☑	☐
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☐ No ☐

Remarks:

This is small area (15 ft long x 3 ft wide) was recently graded allowing a pocket of 1/2 inch thickness of ice two feet upslope from Wetland A between the berm and Wetland A. This area had wetland characteristics at the time of the site visit, however, it is likely that water flows downslope into Wetland A during the growing season, rather than ponding for a long duration. An additional site visit during the growing season is recommended to verify whether it is wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: Wetland B
Transect ID:
Plot ID: SB-5
Circular 39 Type: 3/2
Cowardin: PEMC/B

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Polygonum sp.*	10	H	NI
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks:
bare soil

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: None (in.)
- Depth to saturated soil: 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☑ Sediment deposits
- ☑ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:
Cracked surface soil from previous inundation. Center of wetland 1/2" thick ice.

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16		10YR3/1			sand (sediment) with muck
16-20		10YR2/1			clayey sand (sediment)

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☑ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☑	☐
Wetland hydrology present?	☑	☐
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☑ No ☐

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: Wetland B-upland
Transect ID:
Plot ID: SB-6
Circular 39 Type:
Cowardin:

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Centaurea biebersteinii*	20	H	UPL
2.	*Aster sp.*	20	H	NI
3.	*Solidago species*	20	H	NI
4.	*Taraxacum officinale*	20	H	FACU
5.				
6.				
7.				
8.				
9.				
10.				

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 0-50

Remarks:

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: None (in.)
- Depth to saturated soil: None (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR3/1			sandy loam
6+					rock/gravel refusal

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☐ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☐	☑
Wetland hydrology present?	☐	☑
Hydric soils present?	☐	☑

Is this sampling point within a wetland? Yes ☐ No ☑

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: Wetland C
Transect ID:
Plot ID: SB-7
Circular 39 Type: 2/3
Cowardin: PEMB/C

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Typha species*	45	H	OBL
2.	*Phalaris arundinacea*	50	H	FACW+
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

	Other Plant Species	% Cover	Stratum	Indicator
1.	*Polygonum sp.*	5	H	NI
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks:

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: 30 (in.)
- Depth to saturated soil: None (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☑ Drift lines
- ☐ Sediment deposits
- ☑ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16		10YR4/2	10YR5/6		silty sand
16-32		10YR4/1			silty sand

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☑	☐
Wetland hydrology present?	☑	☐
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☑ No ☐

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑
(If needed, explain on reverse).		

Community ID: Wetland C-upland
Transect ID:
Plot ID: SB-8
Circular 39 Type:
Cowardin:

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Phalaris arundinacea*	50	H	FACW+
2.	*Cirsium arvense*	30	H	FACU
3.	*Lotus corniculatus*	20	H	FAC-
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 33

Remarks:

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: None (in.)
- Depth to saturated soil: None (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☐ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-24		10YR7/1	10YR6/6 and 10YR3/1	10% each	clay
24+					rock refusal

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☐	☑
Wetland hydrology present?	☐	☑
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☐ No ☑

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Pig's Eye Rail Yard	Date:	11/18/2005
Applicant/Owner:	Marathon Petroleum	County:	Ramsey
Investigator:	KSW	State:	MN

	Yes	No
Do normal circumstances exist on the site?	☑	☐
Is the site significantly disturbed (atypical situation)?	☐	☑
Is there a potential problem area?	☐	☑

(If needed, explain on reverse).

Community ID: Wetland D
Transect ID:
Plot ID: SB-9
Circular 39 Type: 2
Cowardin: PEMB

VEGETATION

	Dominant Plant Species	% Cover	Stratum	Indicator
1.	*Phalaris arundinacea*	35	H	FACW+
2.	*Phragmites australis*	35	H	FACW+
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

	Other Plant Species	% Cover	Stratum	Indicator
1.	*Carex hystericina*	10	H	OBL
2.	*Aster sp.*	10	H	NI
3.	*Solidago species*	10	H	NI
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Percent of dominant species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks:

HYDROLOGY

☑ Recorded data (describe in remarks):
- ☐ Stream, lake, or tide gauge
- ☑ Aerial photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of surface water: None (in.)
- Depth to free water in pit: None (in.)
- Depth to saturated soil: None (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in upper 12 inches
- ☐ Water marks
- ☐ Drift lines
- ☐ Sediment deposits
- ☑ Drainage patterns in wetland

Secondary Indicators (2 or more required):
- ☐ Oxidized root channels in upper 12 inches
- ☐ Water-stained leaves
- ☐ Local soil survey data
- ☐ FAC-neutral test
- ☐ Other (explain in remarks)

Remarks:

SOILS

Map unit name (series and phase): _____ Drainage class: _____

Taxonomy (subgroup): _____ Field observations confirm map type? Yes ☐ No ☐

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2	10YR3/1 and 10YR4/6	20% and 10%	sandy muck
12+					refusal

Hydric Soil Indicators:

- ☑ Histosol
- ☐ Histic epipedon
- ☐ Sulfidic odor
- ☐ Aquic moisture regime
- ☐ Reducing conditions
- ☑ Gleyed or low-chroma colors
- ☐ Concretions
- ☐ High organic content in surface layer in sandy soil
- ☐ Organic streaking in sandy soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

	Yes	No
Hydrophytic vegetation present?	☑	☐
Wetland hydrology present?	☑	☐
Hydric soils present?	☑	☐

Is this sampling point within a wetland? Yes ☑ No ☐

Remarks:

Appendix F

Photographs of Delineated Wetlands

Wetland A – looking north 11/21/05

Wetland A – looking south 11/21/05

Wetland A – looking west 5/5/06


Wetland A outlet into Battle Creek 11/21/05

Wetland B – looking north 11/21/05

Wetland B – looking north 5/5/06

Wetland C – looking south 11/21/05

Wetland D – looking east 11/21/05

Battle Creek – looking south 11/21/05

Area where SB-3 and SB-4 were evaluated 11/21/05

Appendix G

Compensatory Storage Data

TKDA
ENGINEERS • ARCHITECTS • PLANNERS

444 Cedar Street, Suite 1500
Saint Paul, MN 55101-2140

(651) 292-4400
(651) 292-0083 Fax
www.tkda.com

MEMORANDUM

To:	Tina Carstens, RWMWD	**Reference:**	RWMWD Permit Application
Copies To:	Greg Schafer, Marathon		Saint Paul Rail Yard
	Jim Hoschka, TKDA		Marathon Petroleum Company, LLC
		Proj. No.:	13518.001
From:	Patrick McLarnon	**Routing:**	
Date:	July 18, 2008		

As an engineering representative for Marathon Petroleum Company, LLC (Marathon) on this project, TKDA is pleased to submit the following information in regard to utilizing the void space within the ballast material for floodplain mitigation.

General Description

Rule D of the RWMWD rules requires that developments placing fill within the 100-year floodplain of any water body provide compensatory storage within the affected floodplain. The project proposes to place fill within the floodplain of the Mississippi River due to elevation constraints on either end of the rail yard. The elevation of the existing rail tracks on the east and west ends of the rail yard are fixed, thus controlling the elevation of the rail yard. In order to tie into the existing rail tracks and maintain standard rail track profile grades, placement of fill is required.

To the maximum extent possible, all open areas within the available property limits (excluding the wetland areas) have been excavated to provide compensatory storage (note that due to past land uses on the property and the property being a VIC site, extensive excavations below elevation 698 feet are not allowed per the Minnesota Pollution Control Agency). Table 1 summarizes the earthwork and Figure 1 shows areas of cut within the rail yard.

Table 1. Earthwork Summary

Soil fill above existing grade	+ 12,770 CY
Ballast fill above existing grade	+ 10,980 CY
Tie fill above existing grade	+ 1,400 CY
Total fill above existing grade	= 25,150 CY
Total cut below existing grade	- 20,830 CY
Earthwork balance (fill)	**+ 4,320 CY**

Discussion

In order to provide overall compensatory storage, Marathon proposes to utilize the void space within the ballast material to balance the floodplain fill. Based on a brief meeting held on July 7, 2008, during which TKDA and RWMWD discussed this concept, we are providing the following information for consideration:

1. Based on testing performed by Braun Intertec Corporation (Braun), the void space of loose ballast material has been tested at 45 to 50 percent of the ballast volume. Braun recommends that after compaction of the ballast material the void space will be on the order of 35 to 40 percent. Refer to the attached letter from Braun.

2. The ballast material, which is granite, has a low break-down potential due to the hardness of the material. In addition, rail traffic in the yard is low volume and speed, which greatly reduces vibrations caused by railcars.

3. The ballast material will sit on top of a graded and compacted Class 5 base, allowing for cross drainage through the ballast material, which is a standard railroad design. The compacted Class 5 roadways within the rail yard will drain to an internal storm sewer system, reducing the potential for fine sediment from the roadways to be deposited within the ballast. Photo 1 illustrates a typical ballast section on top of a graded and compacted Class 5 base.

4. During flooding events on the Mississippi River, it is possible that sediment from flood waters could be deposited in the ballast material, reducing the amount of void space. The majority of sediment in flood waters has been transported from elsewhere within the floodplain. Therefore, there would likely be no net loss of floodplain storage, as the transported sediment would have been removed from somewhere else in the floodplain.

In order to balance the earthwork for the rail yard by utilizing the void space of the ballast material, the void space has been calculated at 40% of the ballast volume. Table 2 summarizes the earthwork with the ballast void space.

Table 2. Earthwork Summary With Ballast Void Space

Soil fill above existing grade	+ 12,770 CY
Ballast fill above existing grade	+ 10,980 CY
Tie fill above existing grade	+ 1,400 CY
Total fill above existing grade	= 25,150 CY
Total cut below existing grade	- 20,830 CY
Earthwork balance (fill)	+ 4,320 CY
Ballast void space at 40%	- 4,390 CY
Final earthwork balance (cut)	**- 70 CY**

Photo 1. Typical Ballast Section on Top of a Graded and Compacted Class 5 Base

Source: TKDA, Sioux Falls, South Dakota, 2004.

Conclusions

Based on the above discussion, Marathon requests that the RWMWD approve the utilization of the void space within the ballast material for compensatory storage. No additional excavation can be completed on the project site, and Marathon does not own any available property within the RWMWD for off-site compensatory storage. Marathon asks for your support in recommending this method for compensatory storage to the RWMWD Board of Managers.

Total Volume Table							
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	
1+00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2+00.00	0.00	11.92	0.00	22.08	0.00	22.08	22.08
3+00.00	68.81	5.96	127.43	33.11	127.43	55.19	−72.24
4+00.00	86.99	6.00	288.52	22.15	415.96	77.33	−338.62
5+00.00	200.10	1.64	531.65	14.16	947.61	91.49	−856.12
6+00.00	299.99	5.67	926.10	13.54	1873.71	105.03	−1768.68
6+45.06	488.14	9.80	657.66	12.91	2531.37	117.94	−2413.43
7+00.00	460.51	49.82	965.14	60.65	3496.52	178.59	−3317.92
8+00.00	515.87	185.13	1808.11	435.08	5304.63	613.68	−4690.95
9+00.00	294.81	230.78	1501.26	770.21	6805.89	1383.88	−5422.00
10+00.00	205.56	132.16	926.62	672.11	7732.50	2055.99	−5676.51
11+00.00	251.87	64.95	847.09	365.01	8579.59	2421.00	−6158.59
12+00.00	259.04	133.96	946.13	368.35	9525.72	2789.35	−6736.37
13+00.00	229.21	117.37	904.18	465.43	10429.90	3254.78	−7175.12
14+00.00	187.00	133.32	770.77	464.24	11200.67	3719.03	−7481.64
15+00.00	134.88	164.56	596.08	551.62	11796.75	4270.65	−7526.10
16+00.00	125.97	199.81	483.05	674.75	12279.80	4945.40	−7334.40
17+00.00	119.24	209.42	454.09	757.83	12733.89	5703.23	−7030.66
18+00.00	124.35	194.13	451.10	747.31	13184.99	6450.54	−6734.45
19+00.00	186.78	165.92	576.17	666.77	13761.16	7117.30	−6643.86

Total Volume Table							
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	
20+00.00	193.23	185.57	703.71	650.91	14464.87	7768.22	−6696.66
21+00.00	227.90	151.81	779.87	624.78	15244.74	8392.99	−6851.75
22+00.00	258.01	143.26	899.84	546.43	16144.58	8939.42	−7205.16
23+00.00	212.26	169.87	870.87	579.87	17015.44	9519.29	−7496.16
24+00.00	158.04	169.24	685.75	627.98	17701.19	10147.26	−7553.92
25+00.00	102.49	280.58	482.47	832.99	18183.66	10980.26	−7203.40
26+00.00	64.01	766.62	308.33	1939.26	18492.00	12919.51	−5572.48
27+00.00	71.12	947.08	250.24	3173.52	18742.23	16093.04	−2649.20
28+00.00	163.35	826.97	434.21	3285.28	19176.44	19378.32	201.88
28+79.37	272.56	0.07	640.70	1215.57	19817.14	20593.89	776.75
29+00.00	279.80	4.24	211.04	1.65	20028.19	20595.54	567.35
30+00.00	147.10	50.09	790.55	100.61	20818.74	20696.15	−122.59
31+00.00	163.79	0.00	575.72	92.75	21394.46	20788.90	−605.57
32+00.00	216.65	0.01	704.53	0.02	22098.99	20788.92	−1310.08
33+00.00	239.49	4.28	844.71	7.95	22943.70	20796.87	−2146.84
34+00.00	279.79	0.00	961.63	7.93	23905.34	20804.80	−3100.54
34+32.26	234.90	0.15	307.47	0.09	24212.81	20804.89	−3407.92
35+00.00	136.31	1.25	465.68	1.75	24678.49	20806.64	−3871.85
36+00.00	45.51	2.41	336.71	6.78	25015.20	20813.42	−4201.78
37+00.00	12.87	3.61	108.10	11.15	25123.30	20824.57	−4298.74

Total Volume Table							
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	
38+00.00	0.00	0.00	23.83	6.69	25147.13	20831.25	−4315.88

TOTAL FILL = 25150 CY

TOTAL CUT = 20830 CY

BALLAST = 10980 CY

TIES = 1400 CY

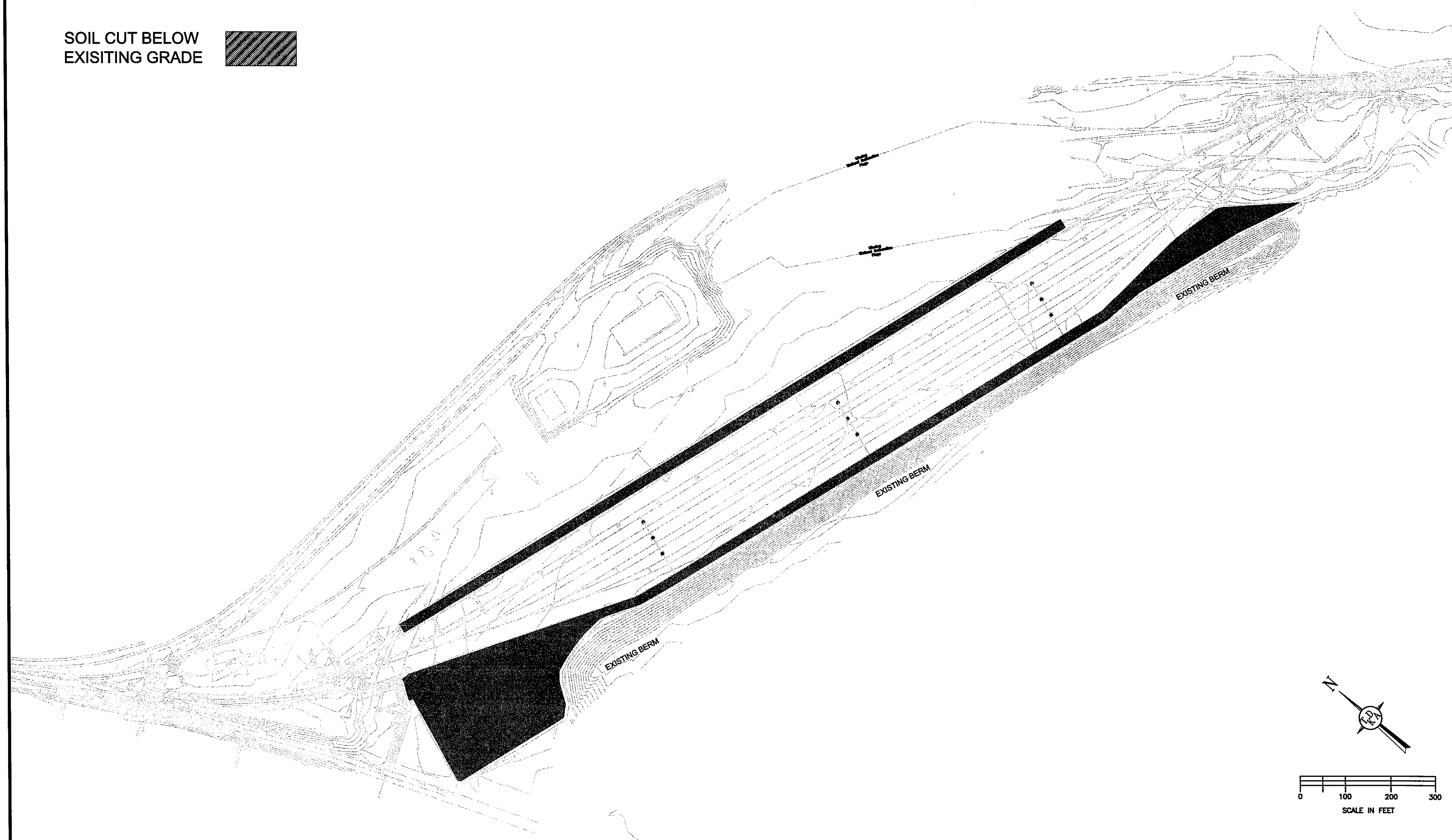
EARTHWORK SUMMARY

MARATHON RAIL YARD

PRJ. 13518.001

RJM 7/18/08

SOIL CUT BELOW
EXISITING GRADE



NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED DRAWN

CHECKED

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE ______________ LIC. NO. ______________

TKDA
ENGINEERS▪ARCHITECTS▪PLANNERS

MARATHON

MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
EARTHWORK SUMMARY
FIGURE 1

SHEET NO. OF SHEETS

PROJECT NO.
13518.001

RECORD NO.

FIELD BOOK:
Plot Date: 07/18/2008
Drawing name: K:\g-m\MarathonAsh\13518001\Rail\bases\LDD_Marathon-CP\dwg\earthwork_summary.dwg
Xrefs.: trackbase

730
720
710
700
690
680
670

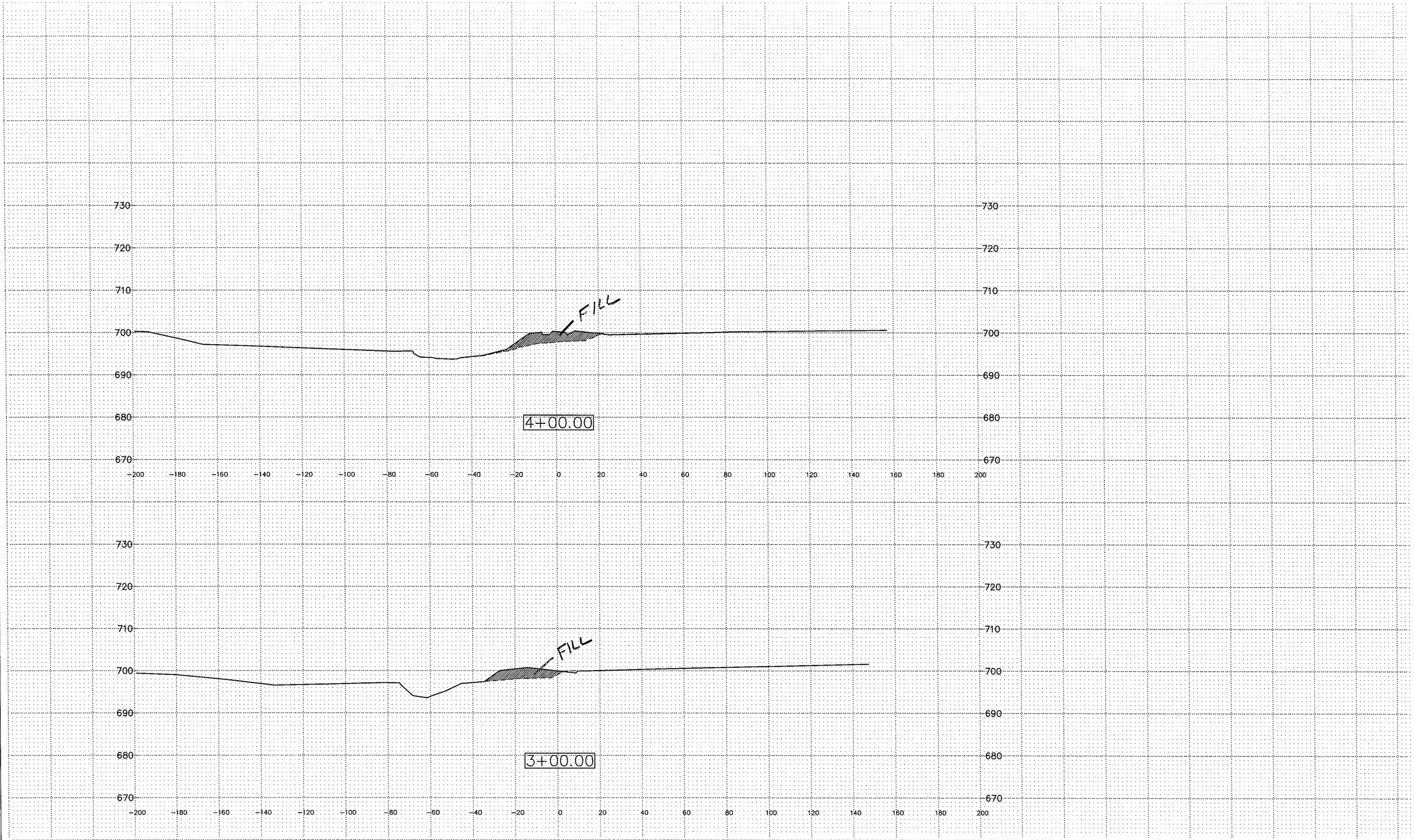
-200 -180 -160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200

2+00.00

730
720
710
700
690
680
670

-200 -180 -160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200

1+00.00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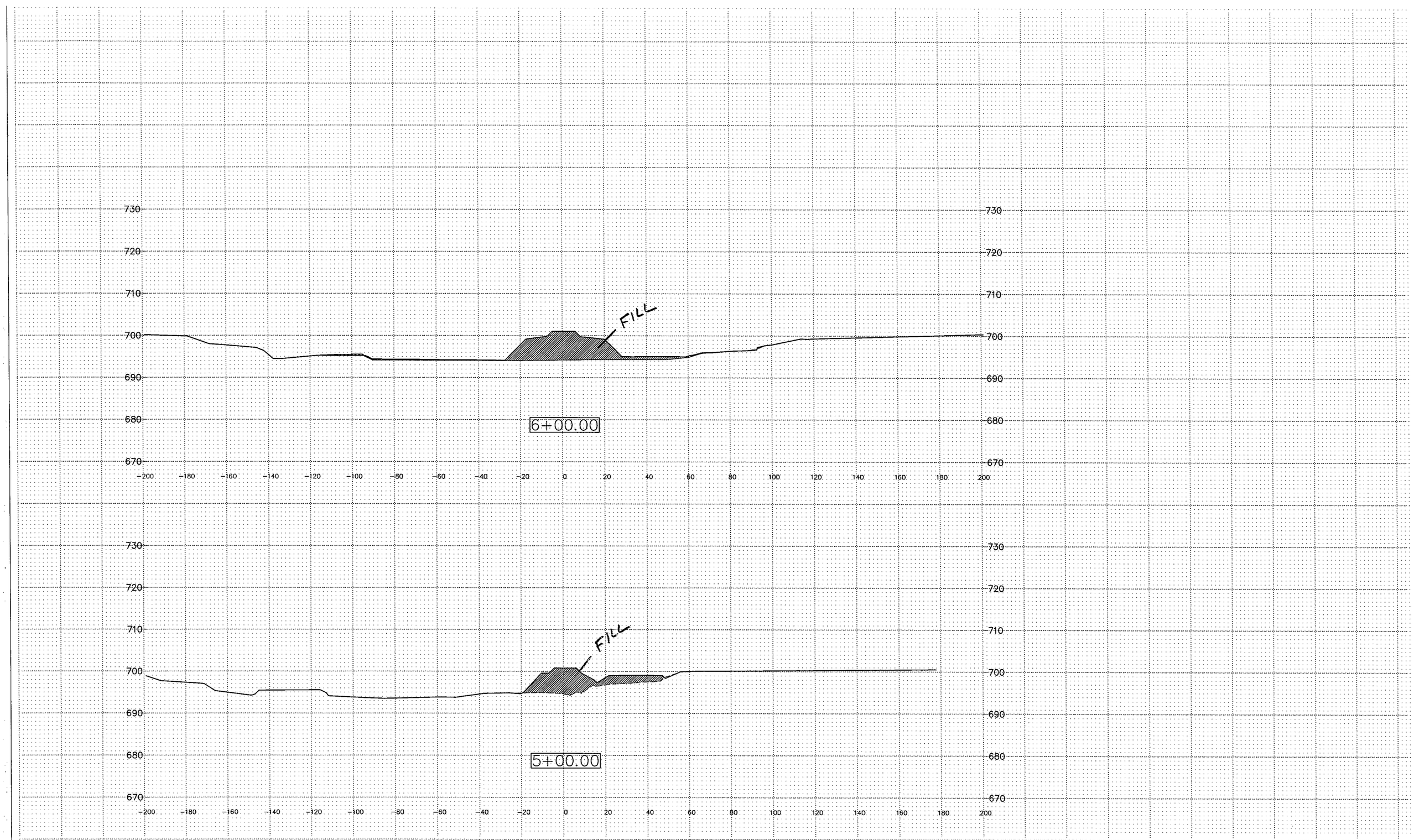
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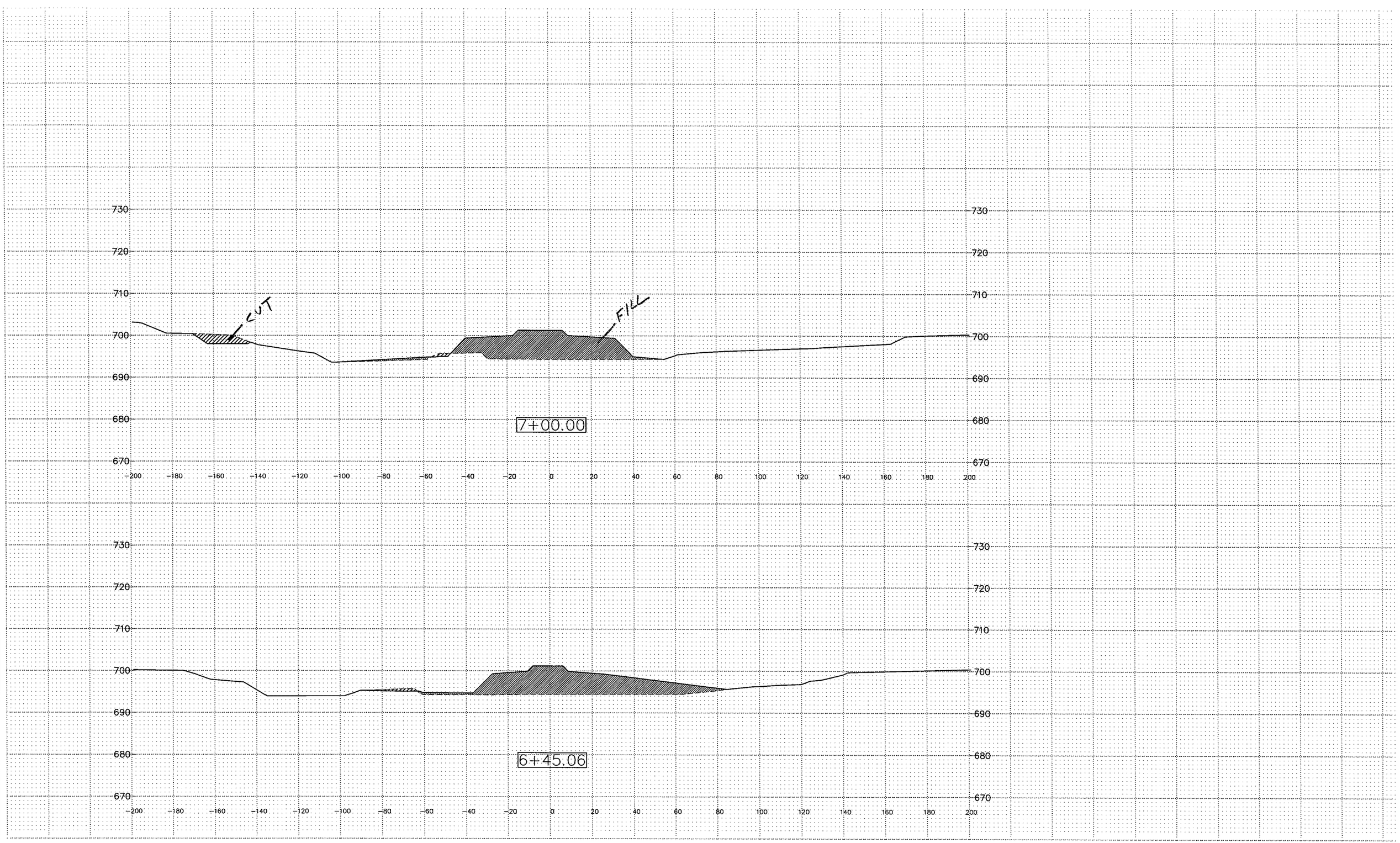
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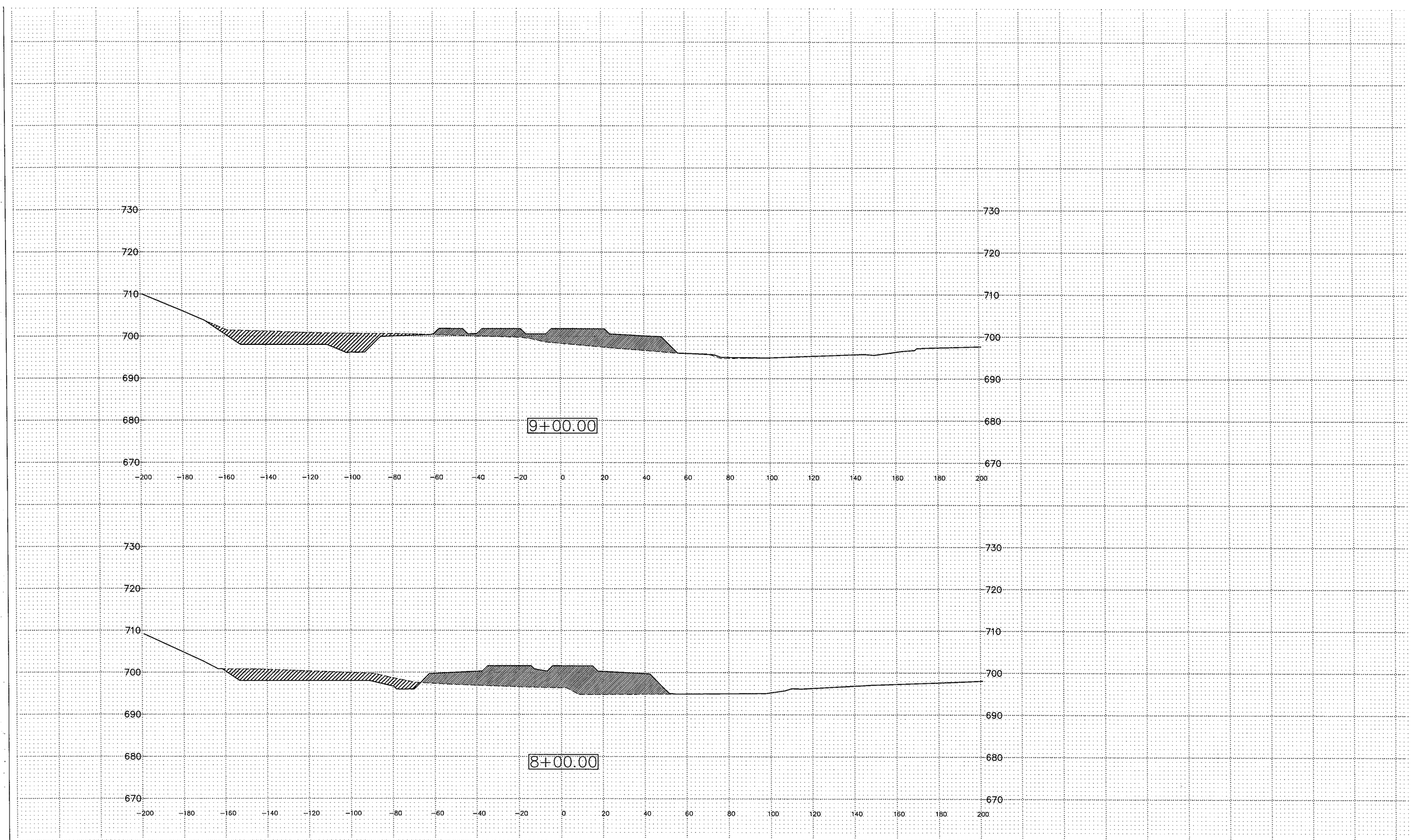
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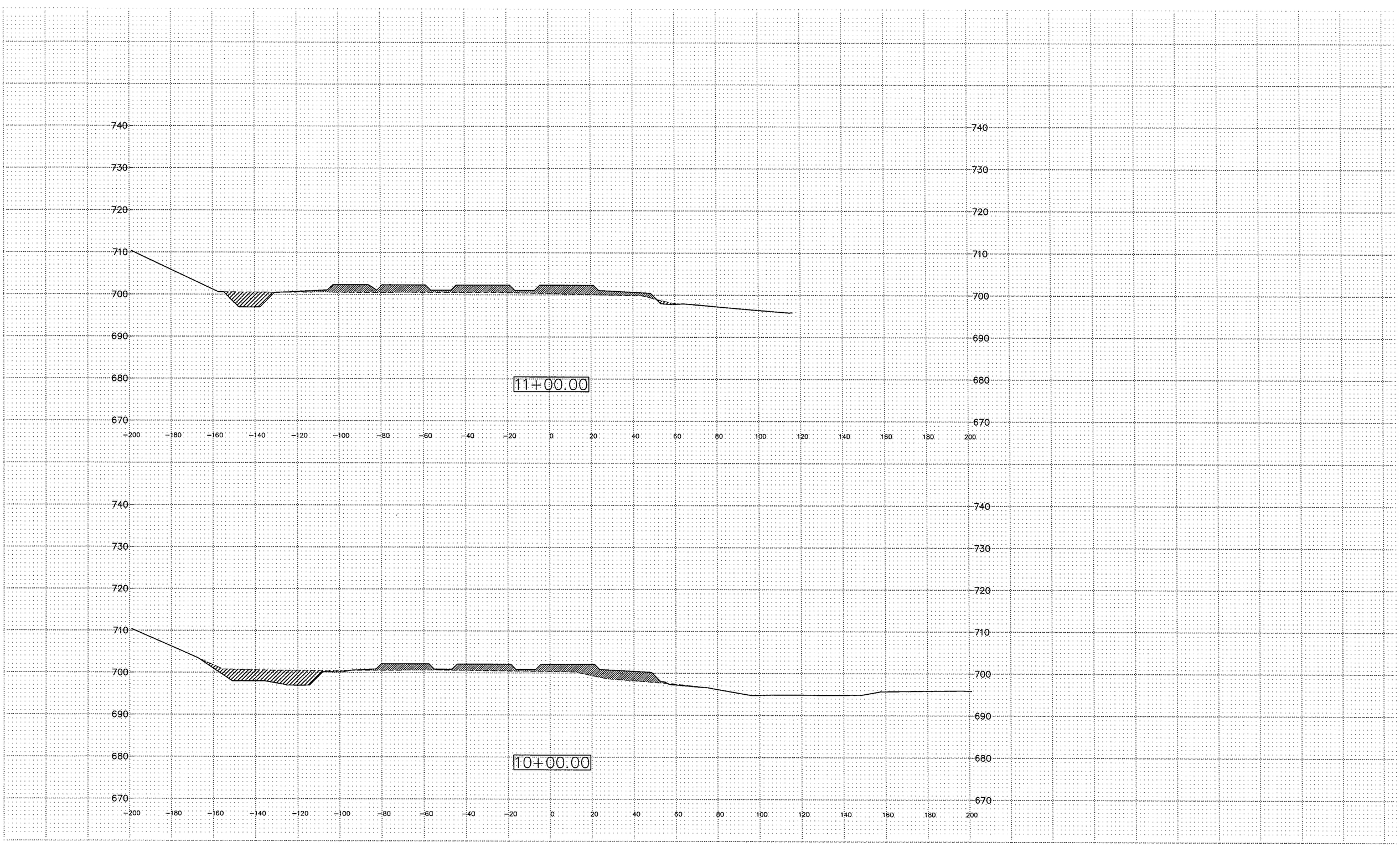
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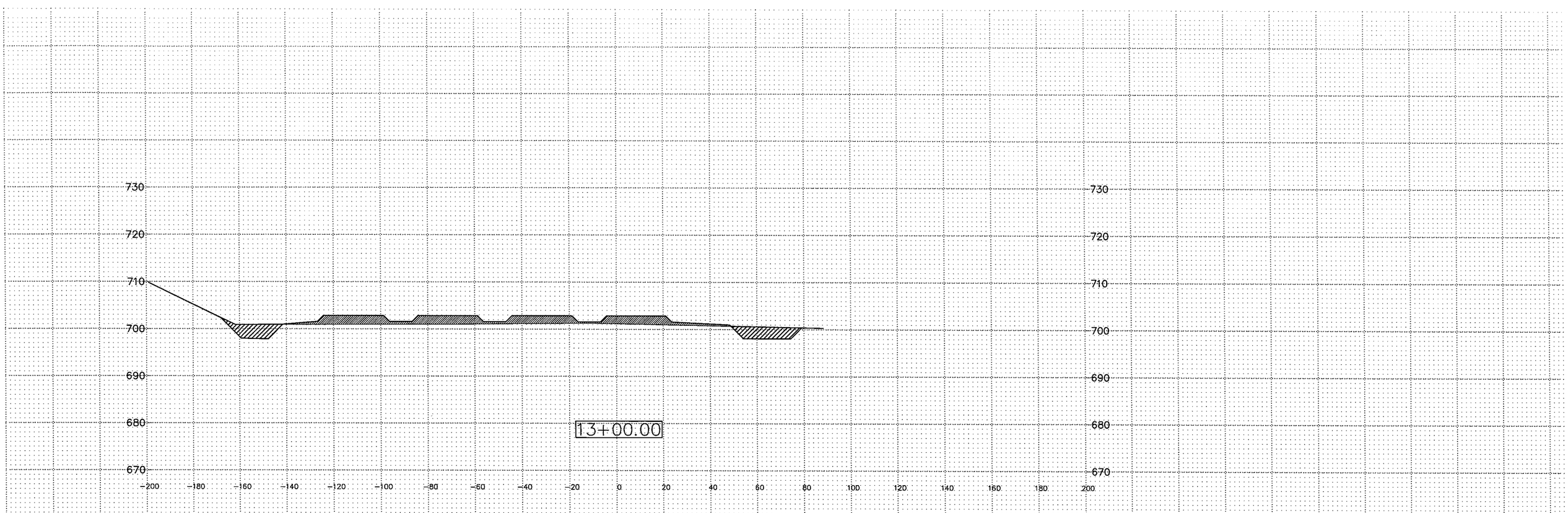
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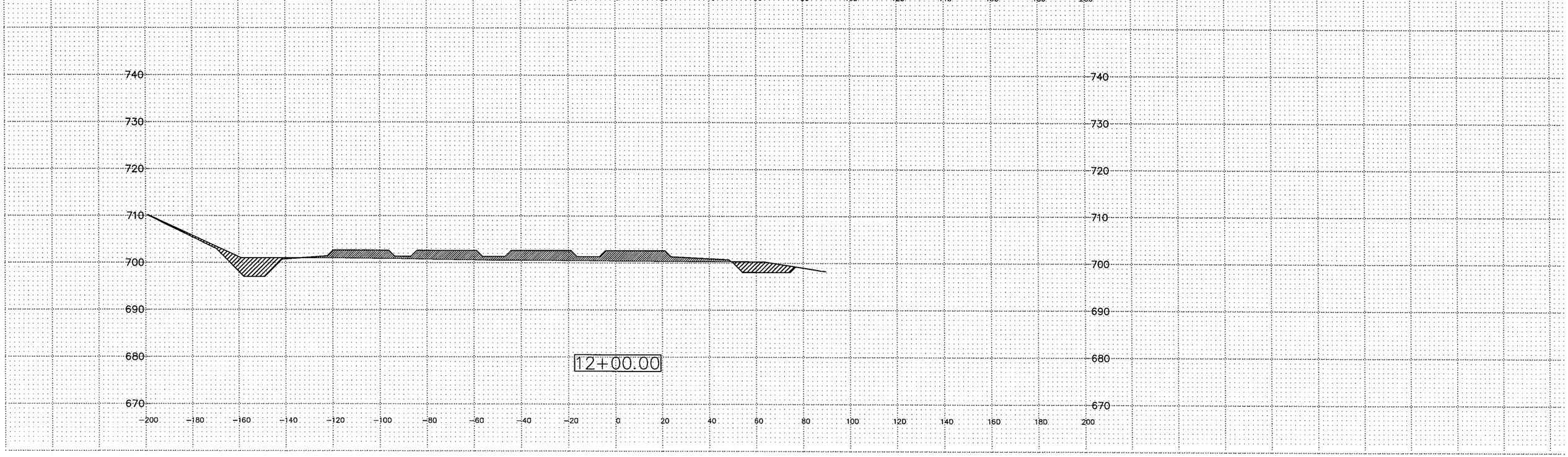
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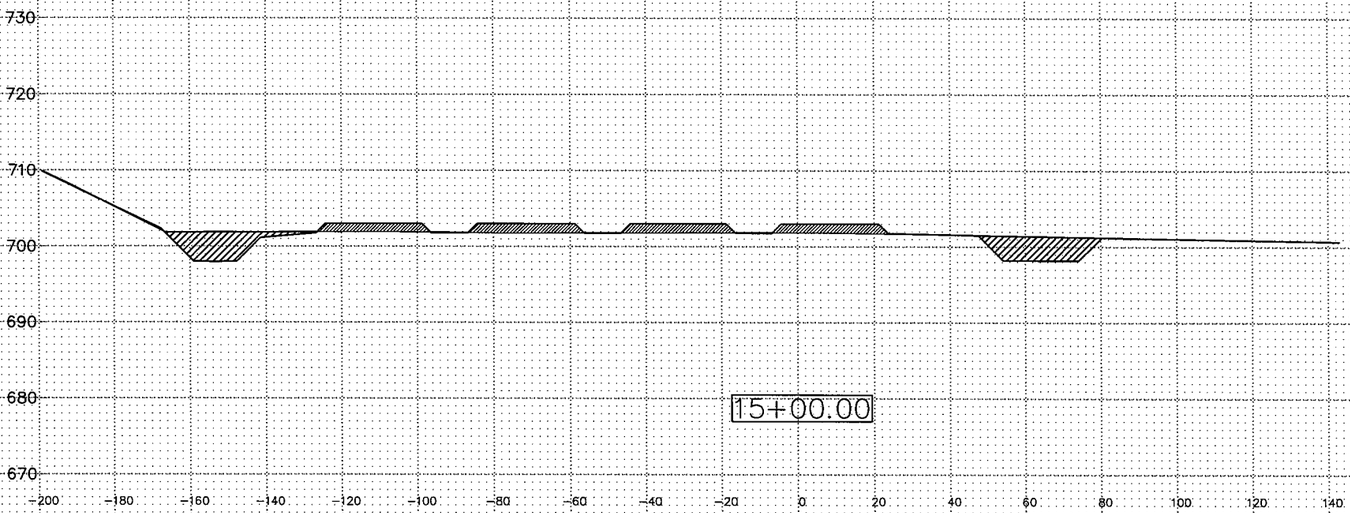
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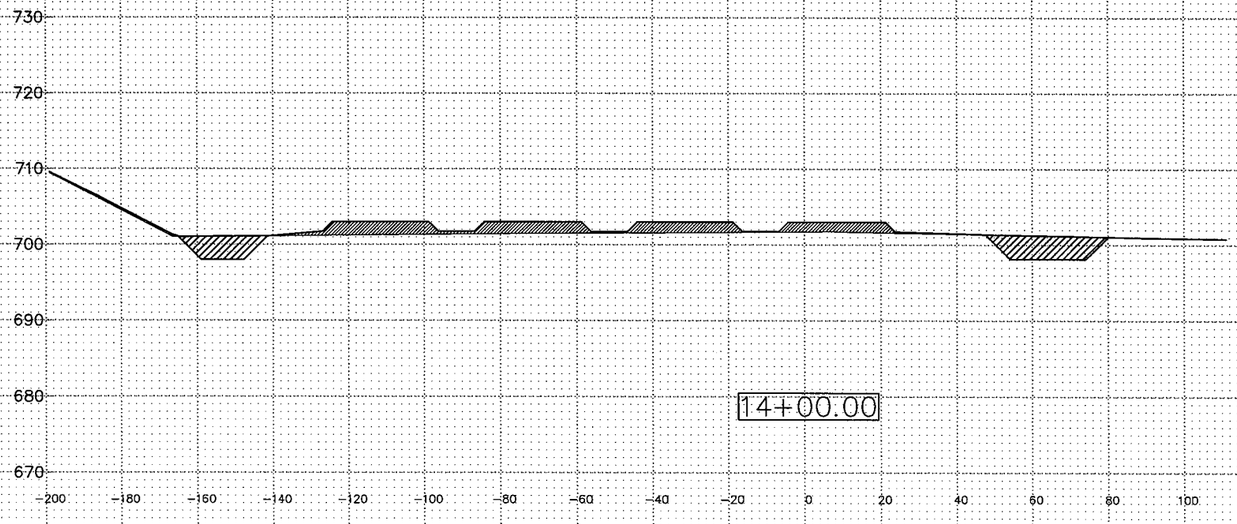
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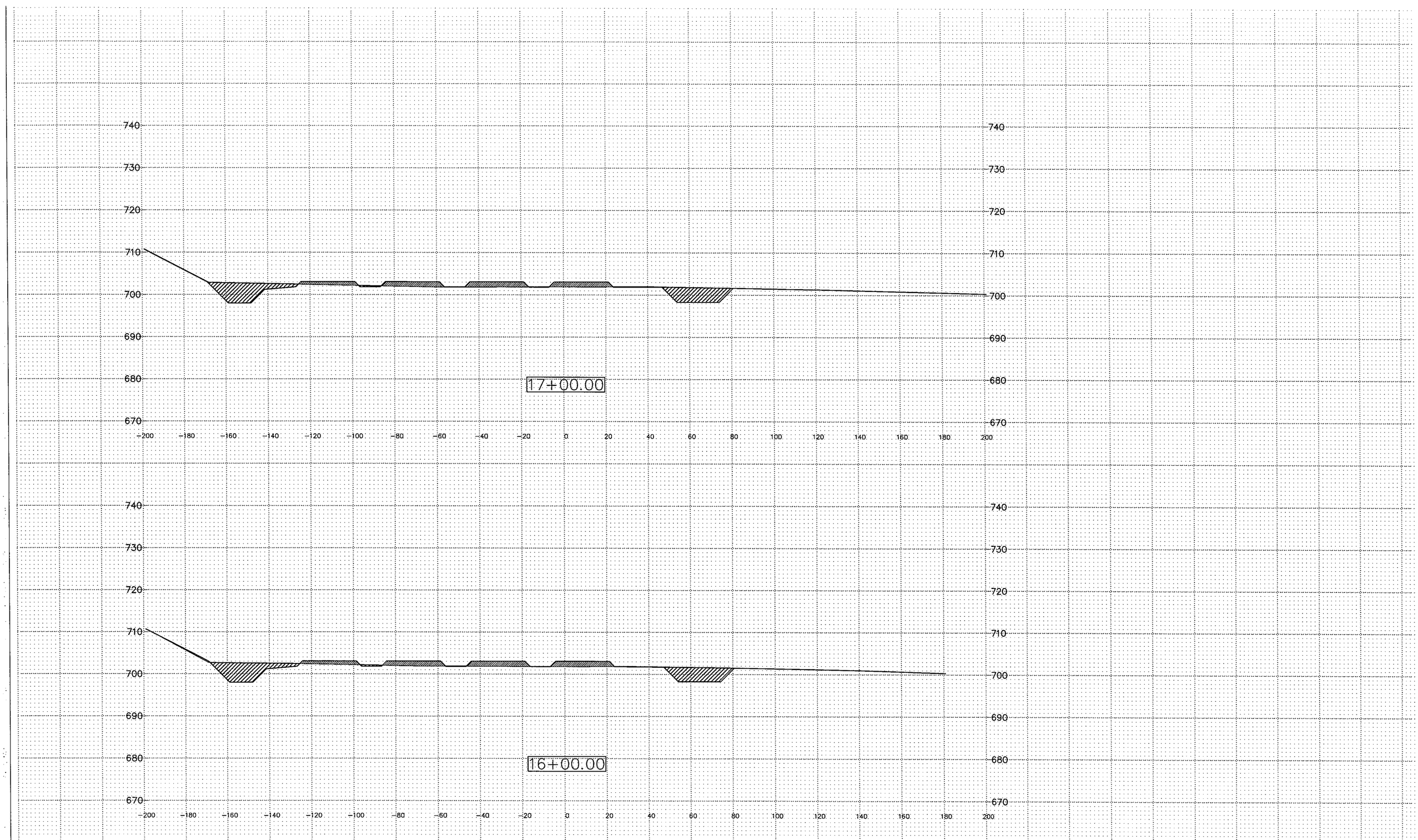
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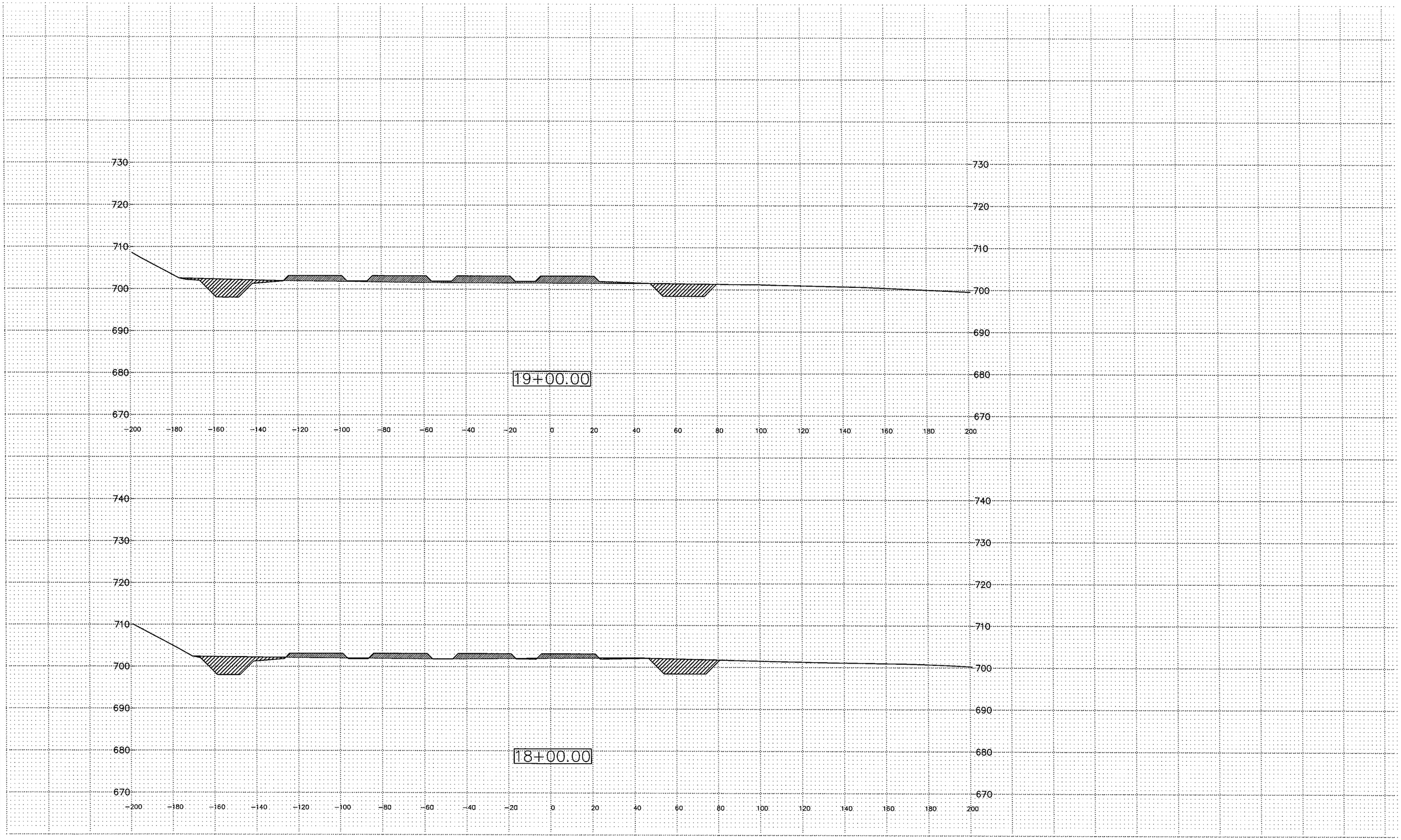
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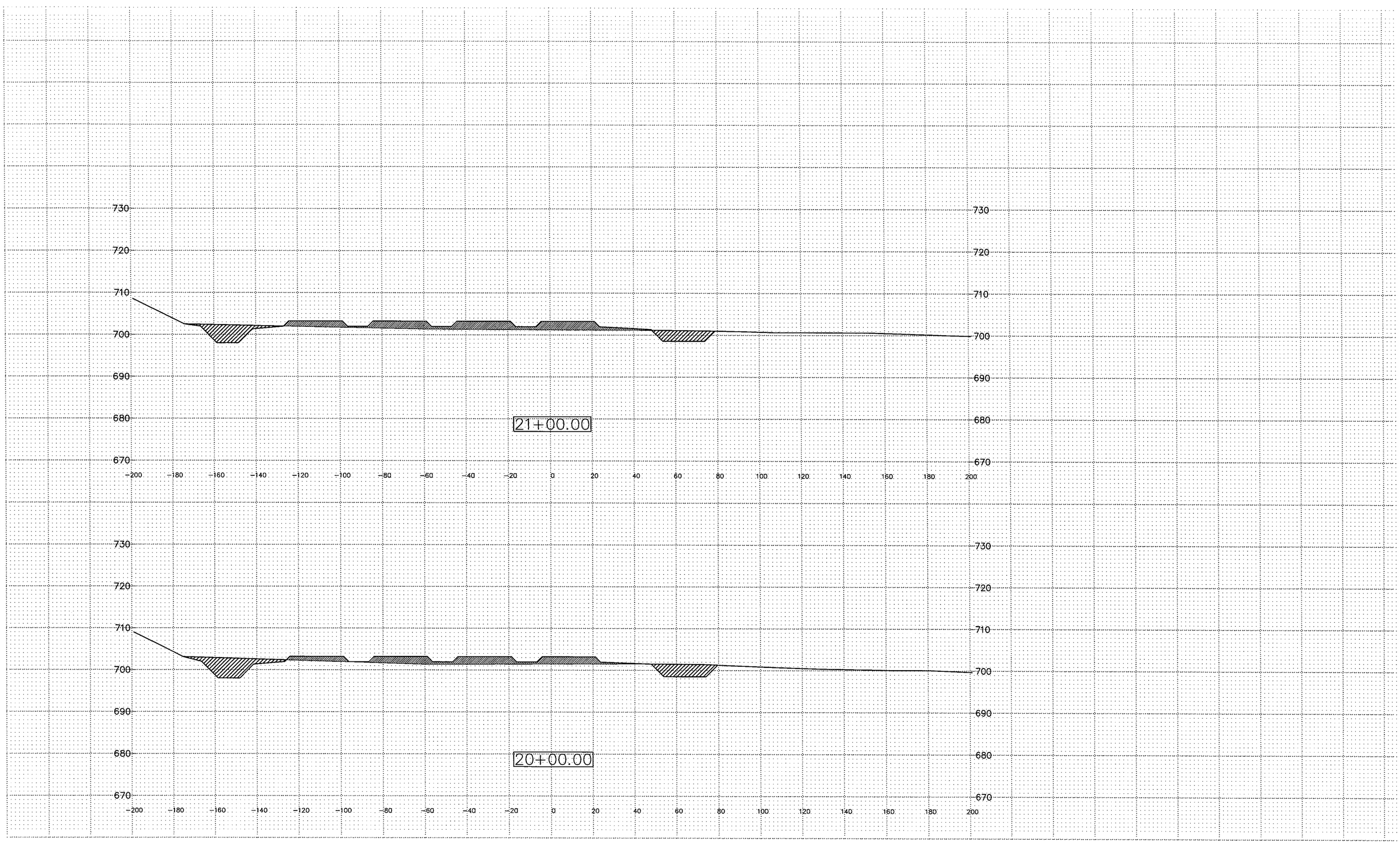
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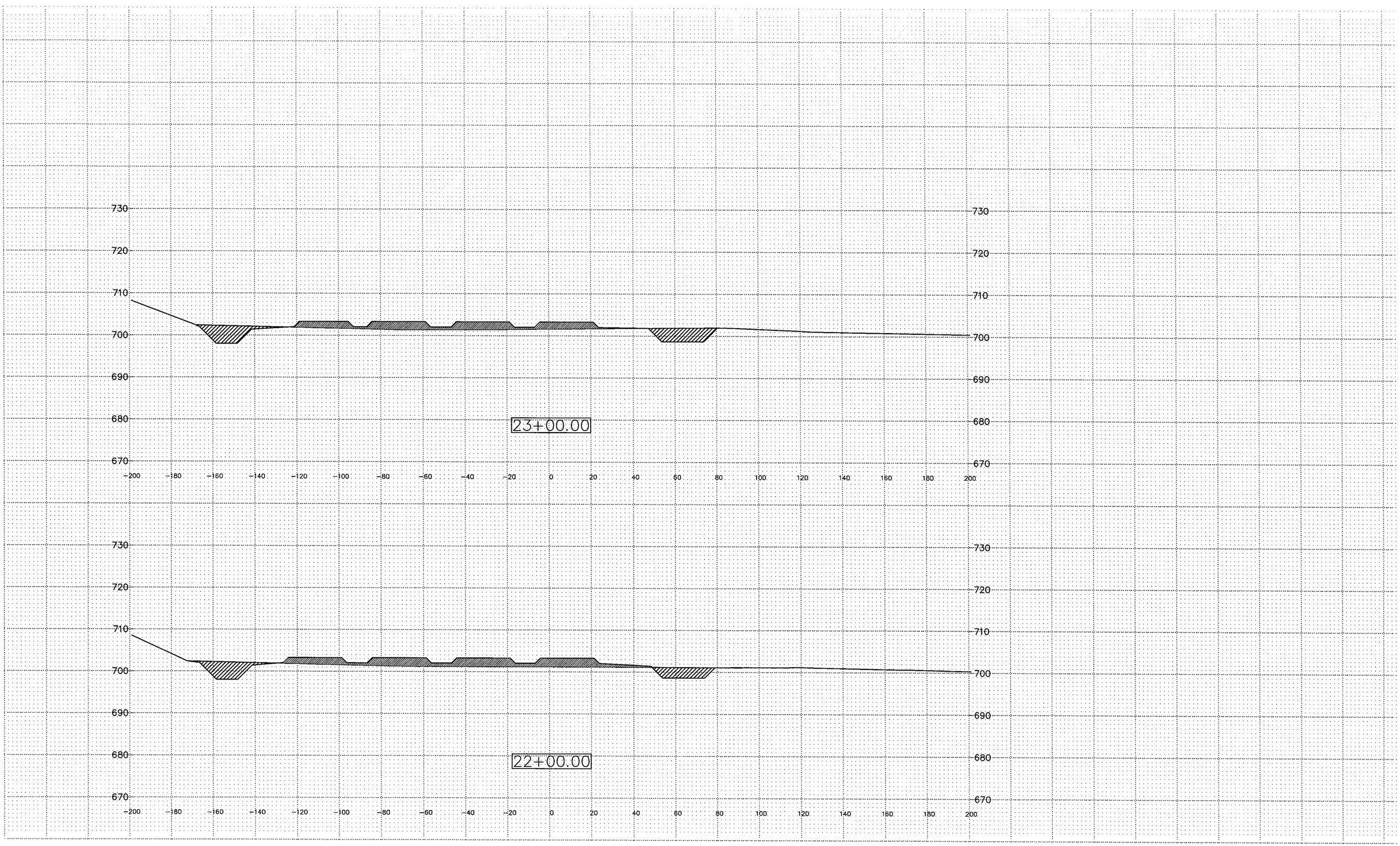
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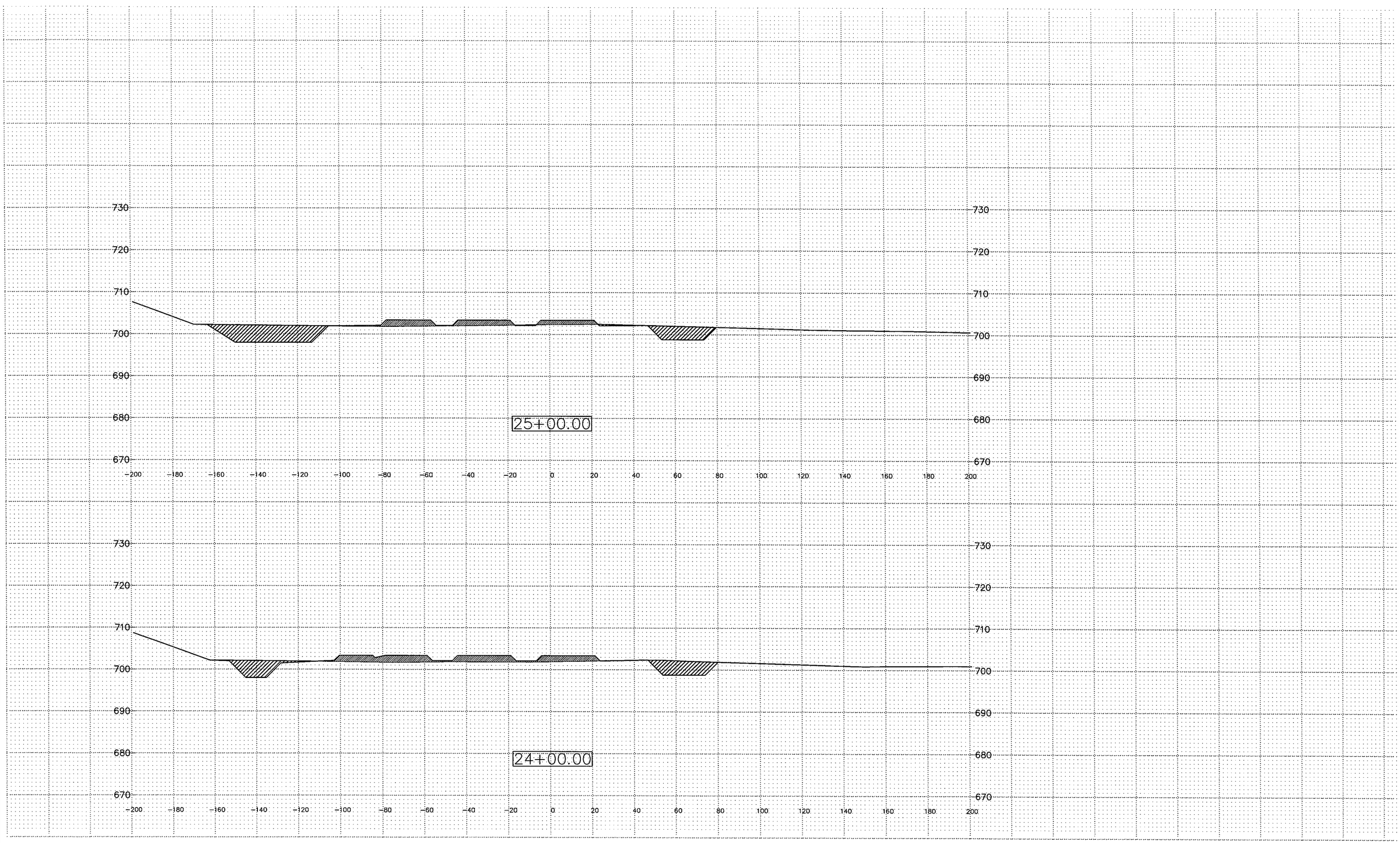
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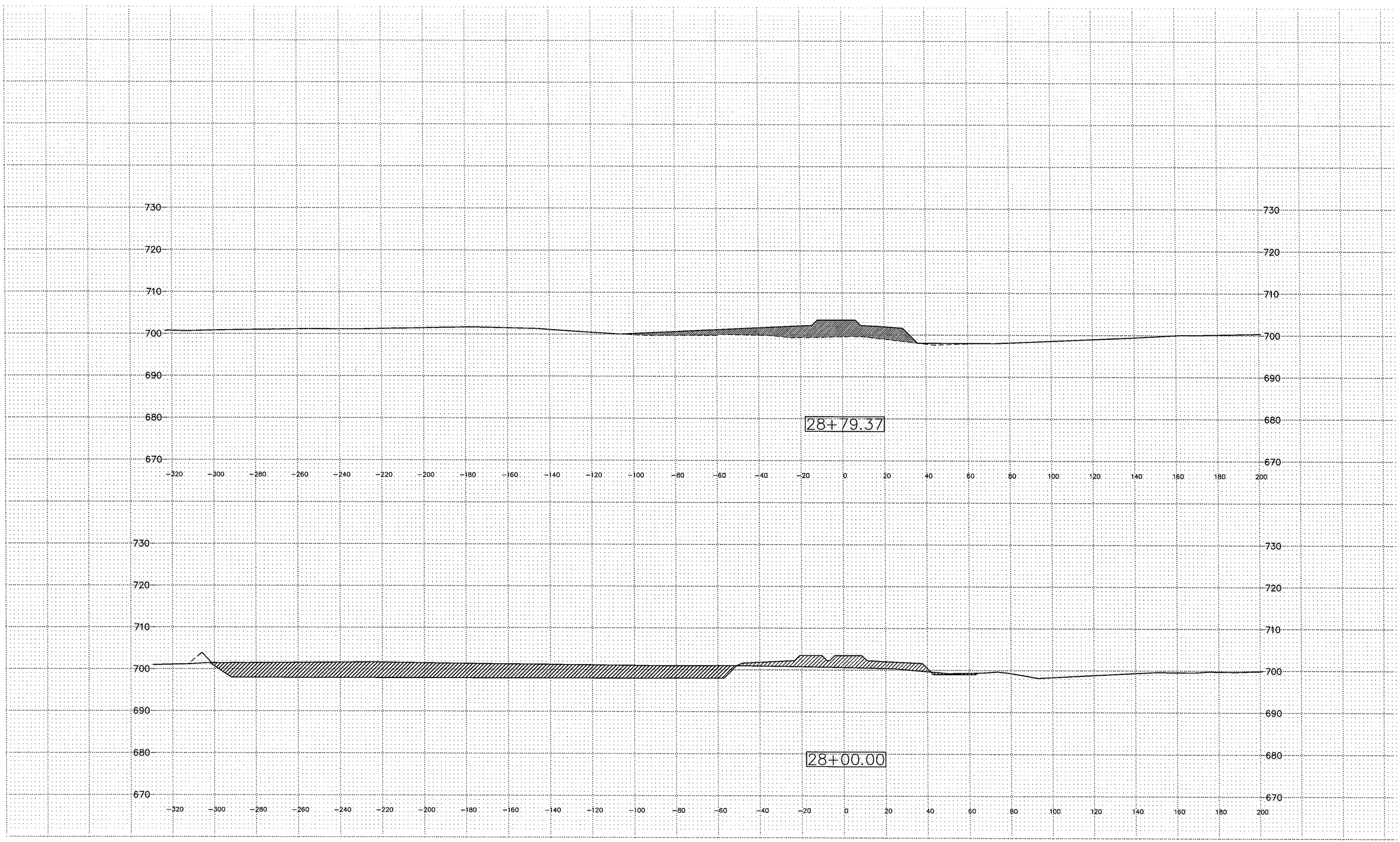
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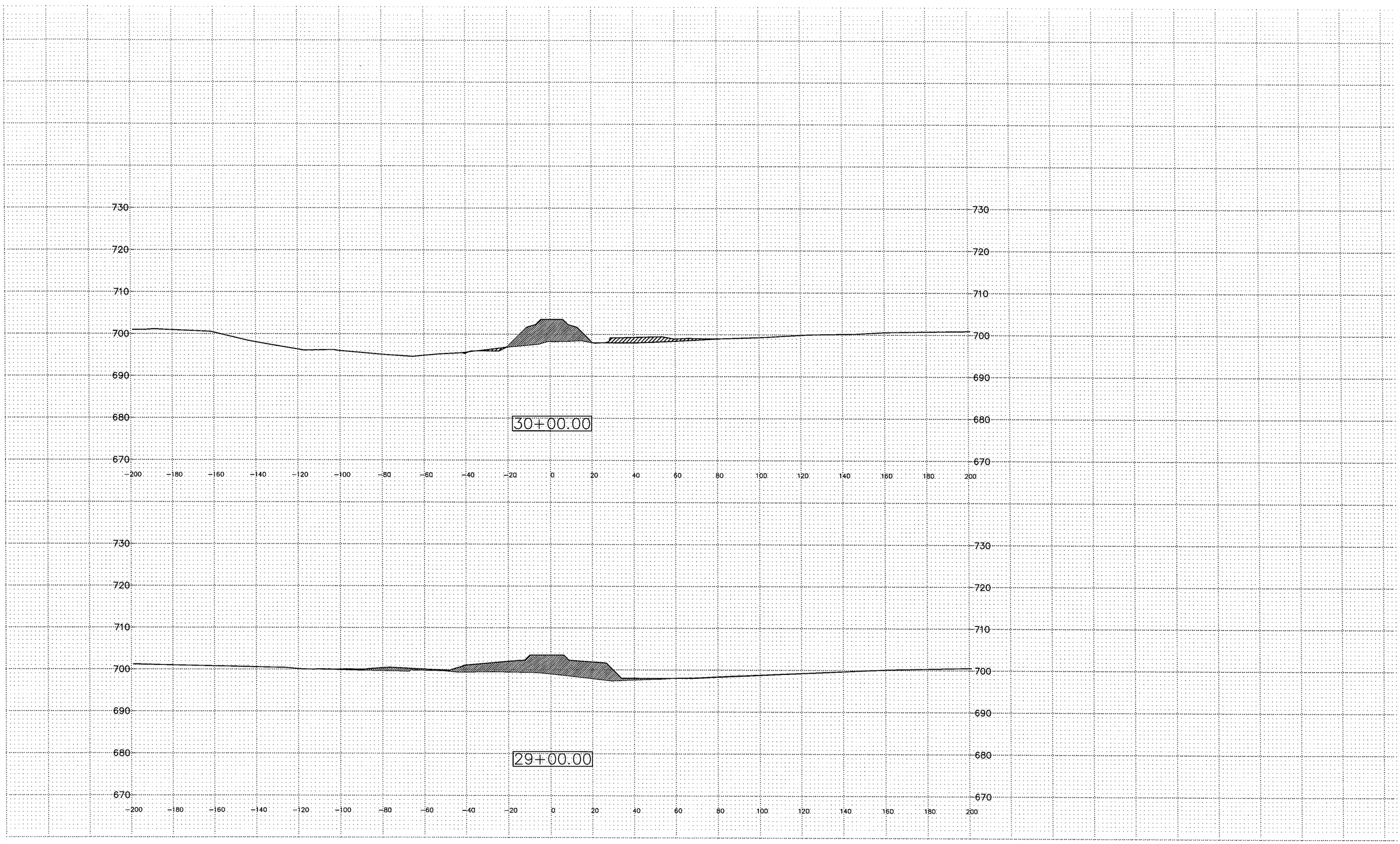
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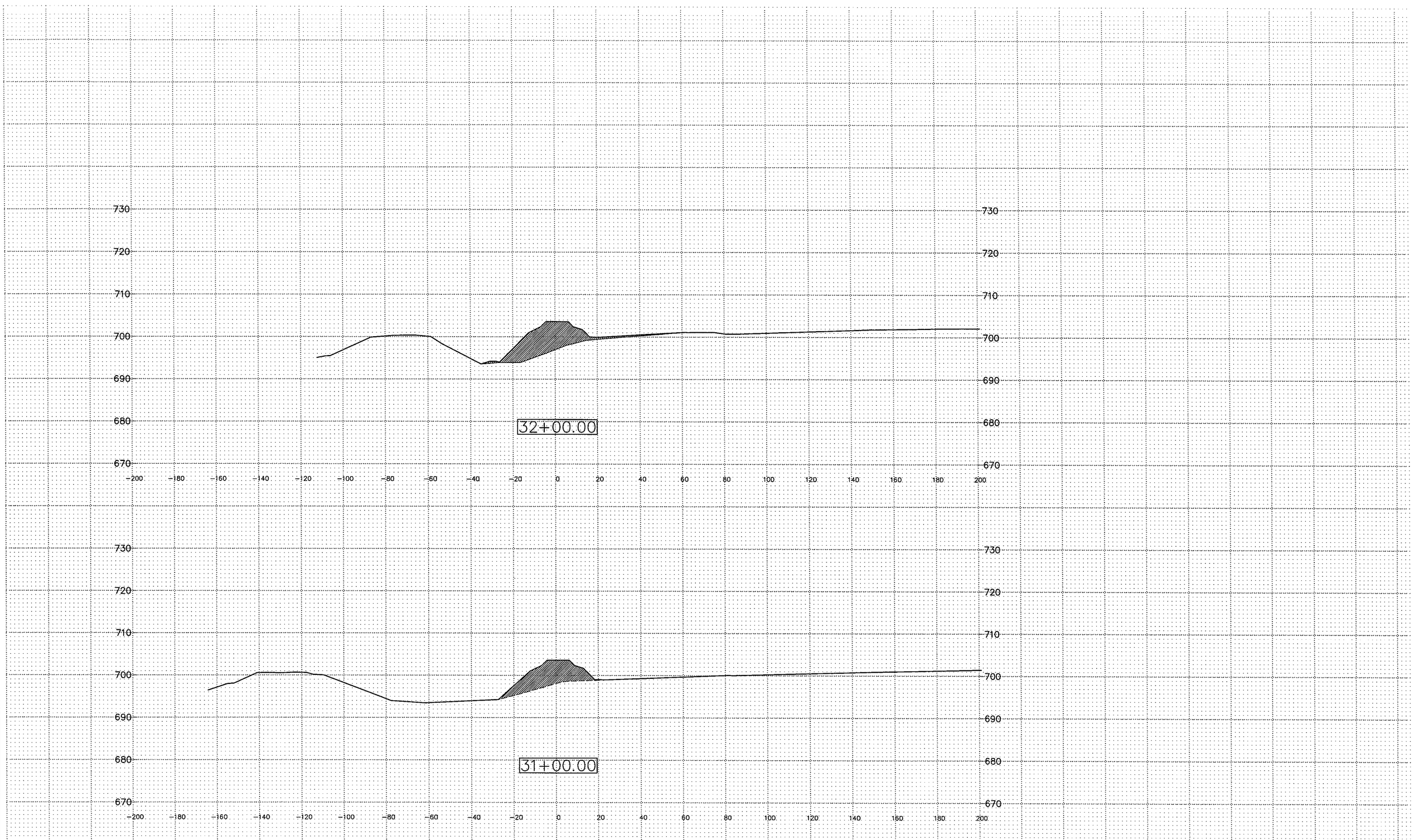
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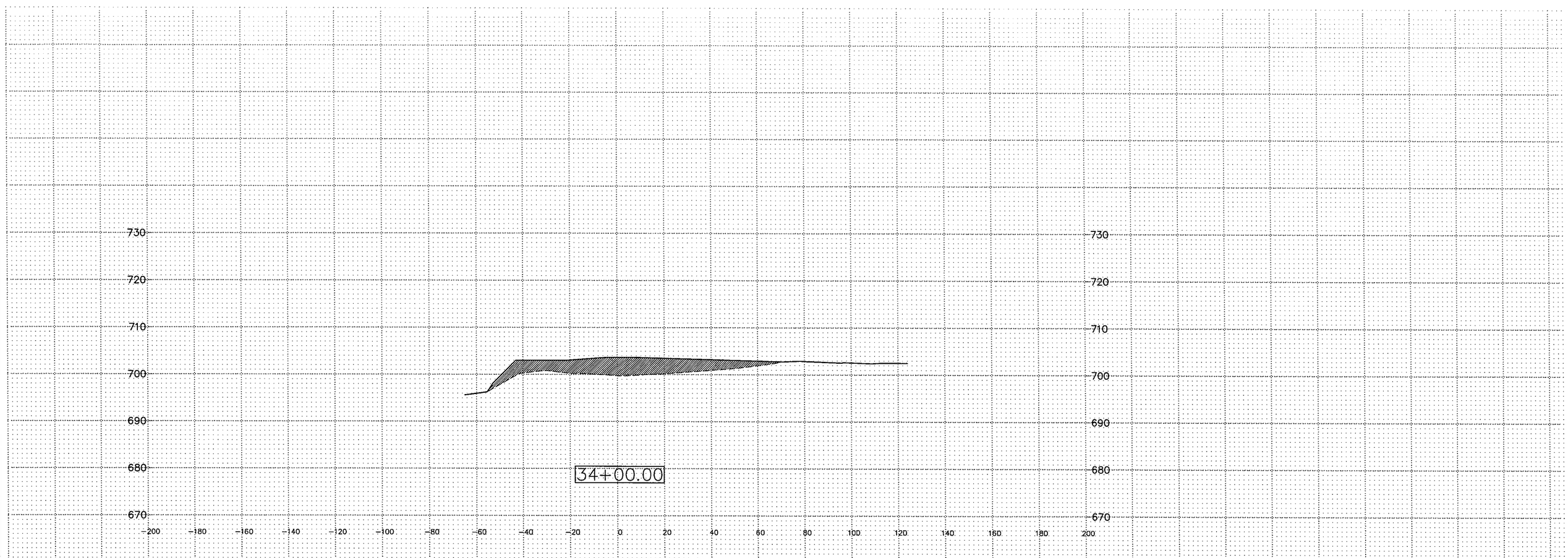
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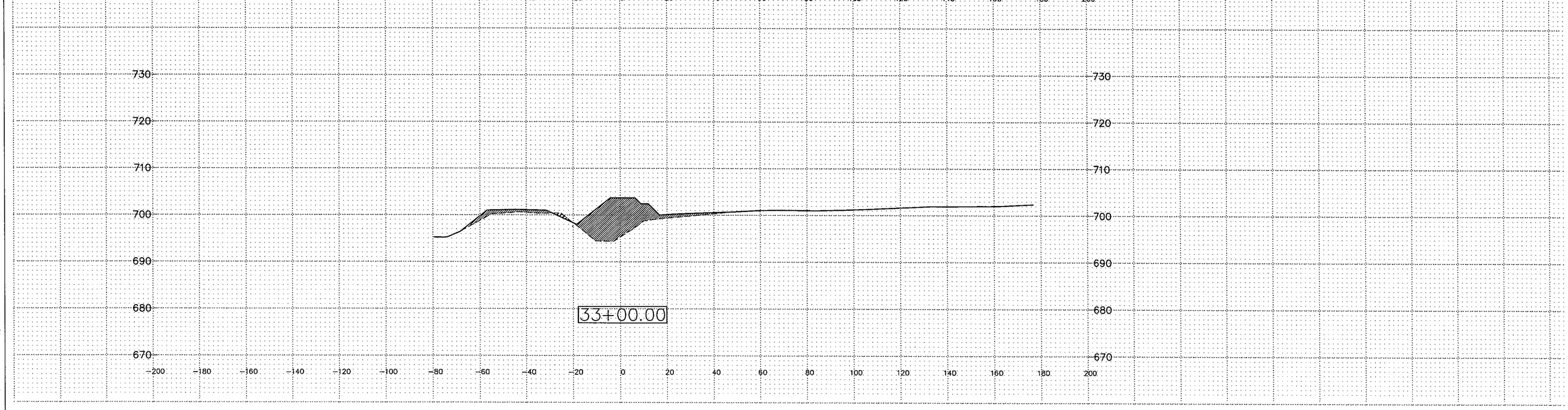
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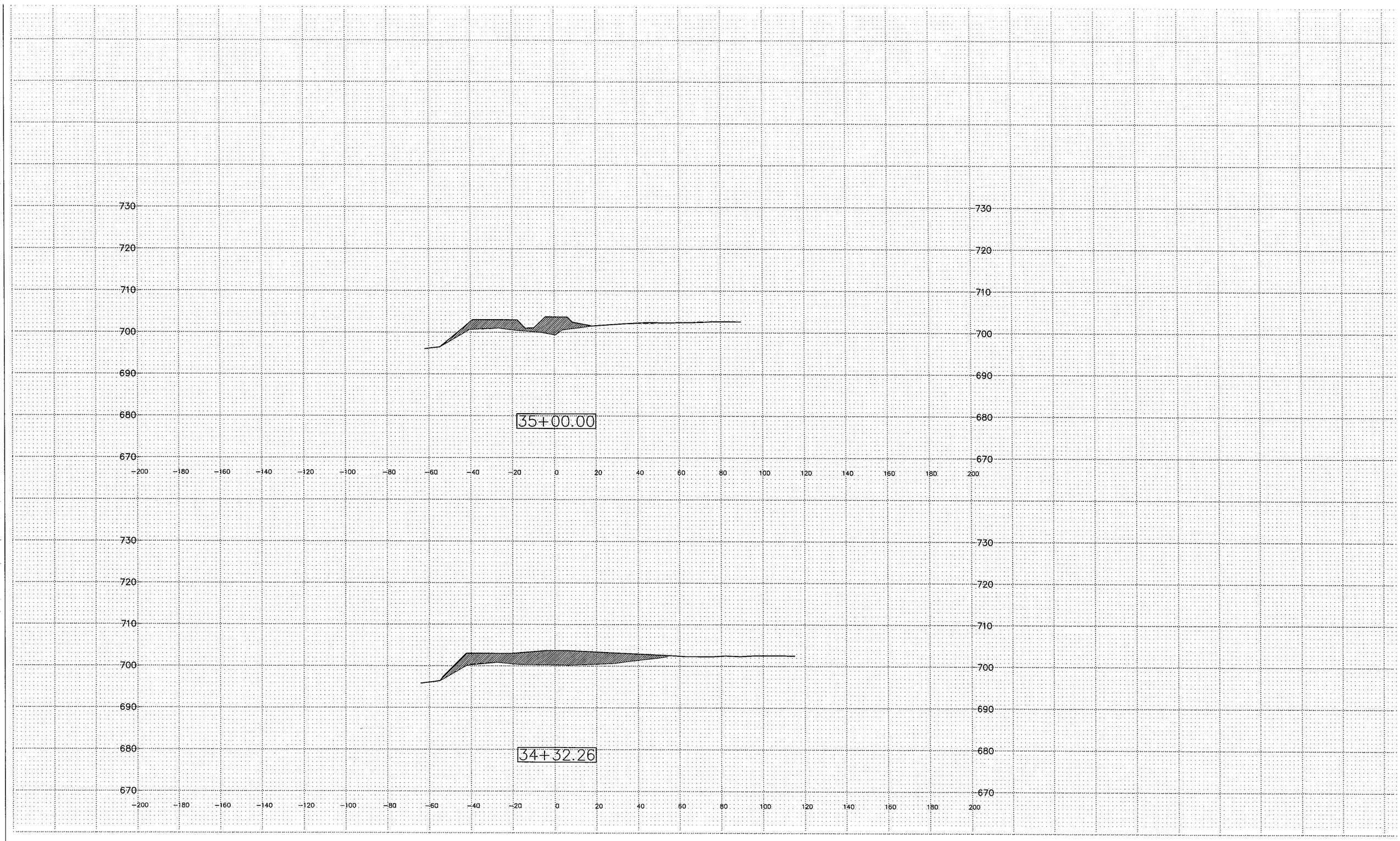
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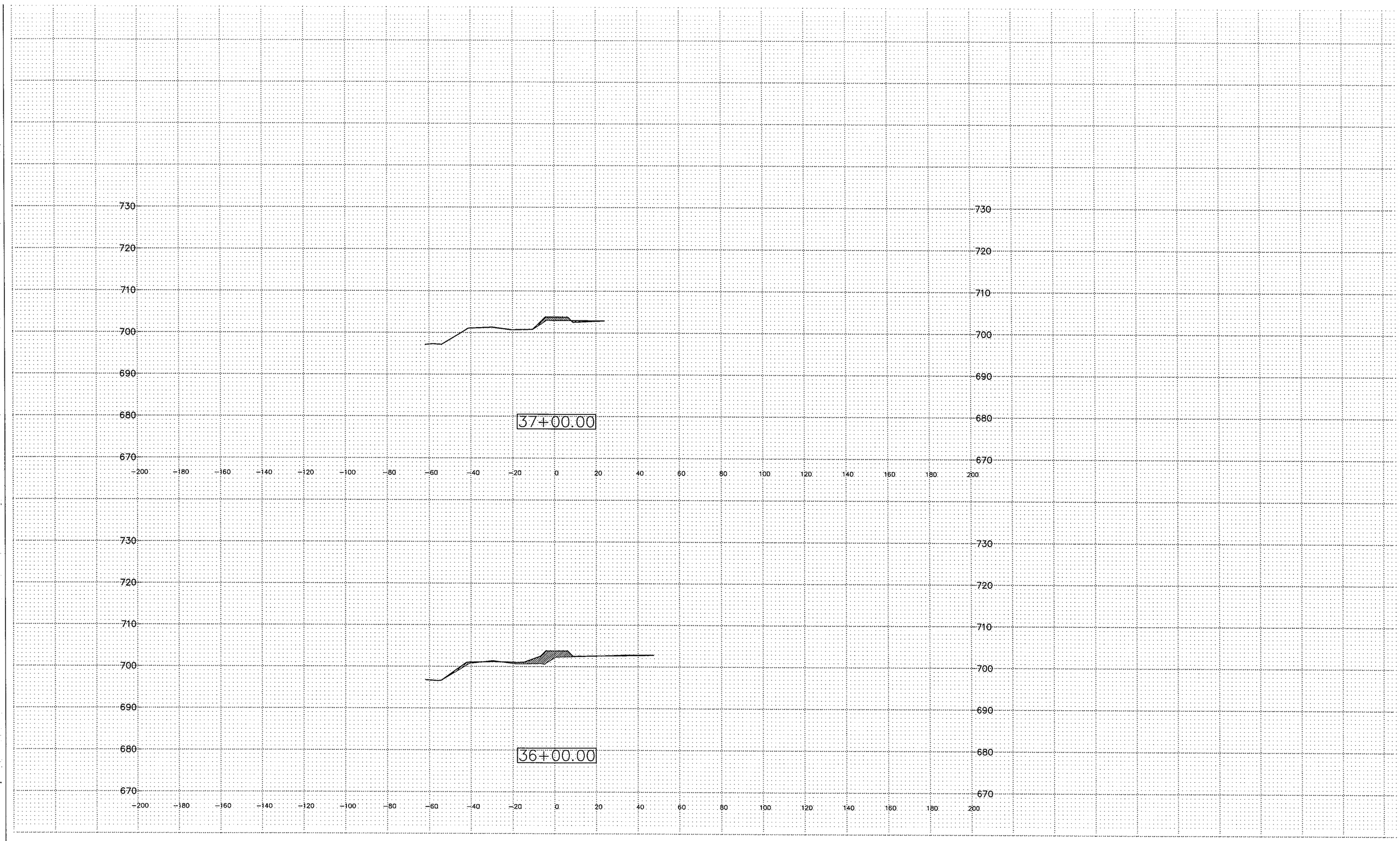
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Appendix H

MNRAM Summary

Wetland Functional Assessment Summary

Marathon Petroleum Company

Wetland ID	*Wildlife Habitat*	*Fishery Habitat*	*Amphibian Habitat*	*Aesthetics, Recreation, Education*	*Commercial*	*Ground-Water Interaction*	*Additional Information*		
							Wetland Restoration Potential	*Stormwater Treatment Needs*	*Wetland Stormwater Sensitivity*
62-028-22-03-001-A Wetland A	Moderate	Moderate	Low	Low	Not Applicable	Combination Discharge, Recharge	Not Applicable	Low	Moderate
62-028-22-03-002-A Wetland C	Moderate	Moderate	Low	Low	Not Applicable	Combination Discharge, Recharge	Not Applicable	Moderate	Moderate
62-028-22-03-003-A Wetland D	Moderate	Moderate	Not Applicable	Low	Not Applicable	Combination Discharge, Recharge	Not Applicable	Moderate	Moderate
62-028-22-03-004-A Bottle Creek	Low	Moderate	Low	Low	Not Applicable	Combination Discharge, Recharge	Not Applicable	Low	Moderate
62-028-22-04-001-S Wetland B	Low	Low	Low	Low	Not Applicable	Combination Discharge, Recharge	Not Applicable	Low	Moderate

Wetland Functional Assessment Summary
Marathon

Wetland ID	*Hydrogeomorphology*	*Hydrologic Regime*	*Flood Storage*	*Downstream Water Quality*	*Wetland Water Quality*	*Shoreline Protection*
62-028-22-03-001-A	Depressional/Flow-through (apparent inlet and outlet), Depressional/Flow-through (apparent inlet and outlet)	Moderate	Moderate	Moderate	Low	Not Applicable
62-028-22-03-002-A	Depressional/Isolated (no discernable inlets or outlets)	Moderate	Moderate	Moderate	Moderate	Not Applicable
62-028-22-03-003-A	Depressional/Isolated (no discernable inlets or outlets)	Moderate	Moderate	Moderate	Moderate	Not Applicable
62-028-22-03-004-A	Riverine (within the river/stream banks)	Moderate	Moderate	Moderate	Low	Moderate
62-028-22-04-001-S	Depressional/Isolated (inlet, but no outlet)	Low	Moderate	Moderate	Low	Not Applicable

Wetland Community Summary
Marathon

			Vegetative Diversity/Integrity								
			Community								
Wetland ID	*Subwatershed*	*Wetland Size (acres)*	*Cowardin Classification*	*Circular 39*	*Plant Community*	*Wetland Proportion*	*Individual Community Rating*	*Highest Wetland Rating*	*Average Wetland Rating*	*Weighted Average Wetland Rating*	*
62-028-22-03-001-A		6.05	PEMC	Type 3	Shallow Marsh	40	0.1				
62-028-22-03-001-A		6.05	PEMB	Type 2	Fresh (Wet) Meadow	50	0.1				
62-028-22-03-001-A		6.05	PFO1A	Type 1	Floodplain Forest	10	0.1				
62-028-22-03-001-A						100		Low	Low	Low	☐
62-028-22-03-002-A		0.13	PEMC	Type 3	Shallow Marsh	20	0.1				
62-028-22-03-002-A		0.13	PEMB	Type 2	Fresh (Wet) Meadow	80	0.1				
62-028-22-03-002-A						100		Low	Low	Low	☐
62-028-22-03-003-A		0.04	PEMB	Type 2	Fresh (Wet) Meadow	100	0.1				
62-028-22-03-003-A						100		Low	Low	Low	☐
62-028-22-03-004-A		0.4	R2UBG	Type 4	Deep Marsh	80	0.1				
62-028-22-03-004-A		0.4	PEMF	Type 3	Shallow Marsh	20	0.1				
62-028-22-03-004-A						100		Low	Low	Low	☐
62-028-22-04-001-S		0.29	PEMC	Type 3	Shallow Marsh	90	0.1				
62-028-22-04-001-S		0.29	PEMB	Type 2	Fresh (Wet) Meadow	10	0.1				
62-028-22-04-001-S						100		Low	Low	Low	☐

** Denotes incomplete calculation data.*

Appendix I

City of St. Paul Conditional Use Permit Application

CONDITIONAL USE PERMIT APPLICATION

Department of Planning and Economic Development
Zoning Section
1400 City Hall Annex
25 West Fourth Street
Saint Paul, MN 55102-1634
(651) 266-6589

Zoning office use only
File #
Fee
Tentative Hearing Date

APPLICANT

Name GREG SCHAFER
Address 301 ST. PAUL PARK RD
City ST. PAUL PARK St. MN Zip 55071 Daytime Phone 651.458.2758
Name of Owner (if different) CANADIAN PACIFIC RAILWAY
Contact Person (if different) LEEANN THOMAS Phone 612.904.6130

PROPERTY LOCATION

Address / Location PIG'S EYE LAKE RD, ST. PAUL, MN
Legal Description T28, R22, SW53, SE54, ST. PAUL, RAMSEY CO, MN
Current Zoning I-2
(attach additional sheet if necessary)

TYPE OF PERMIT: Application is hereby made for a Conditional Use Permit under provisions of
Chapter 63, Section 1006 63.607, Paragraph 1 & 2 of the Zoning Code.

SUPPORTING INFORMATION: Explain how the use will meet all of the applicable standards and conditions. If you are requesting modification of any special conditions or standards for a conditional use, explain why the modification is needed and how it meets the requirements for modification of special conditions in Section 61.502 of the Zoning Code. Attach additional sheets if necessary.

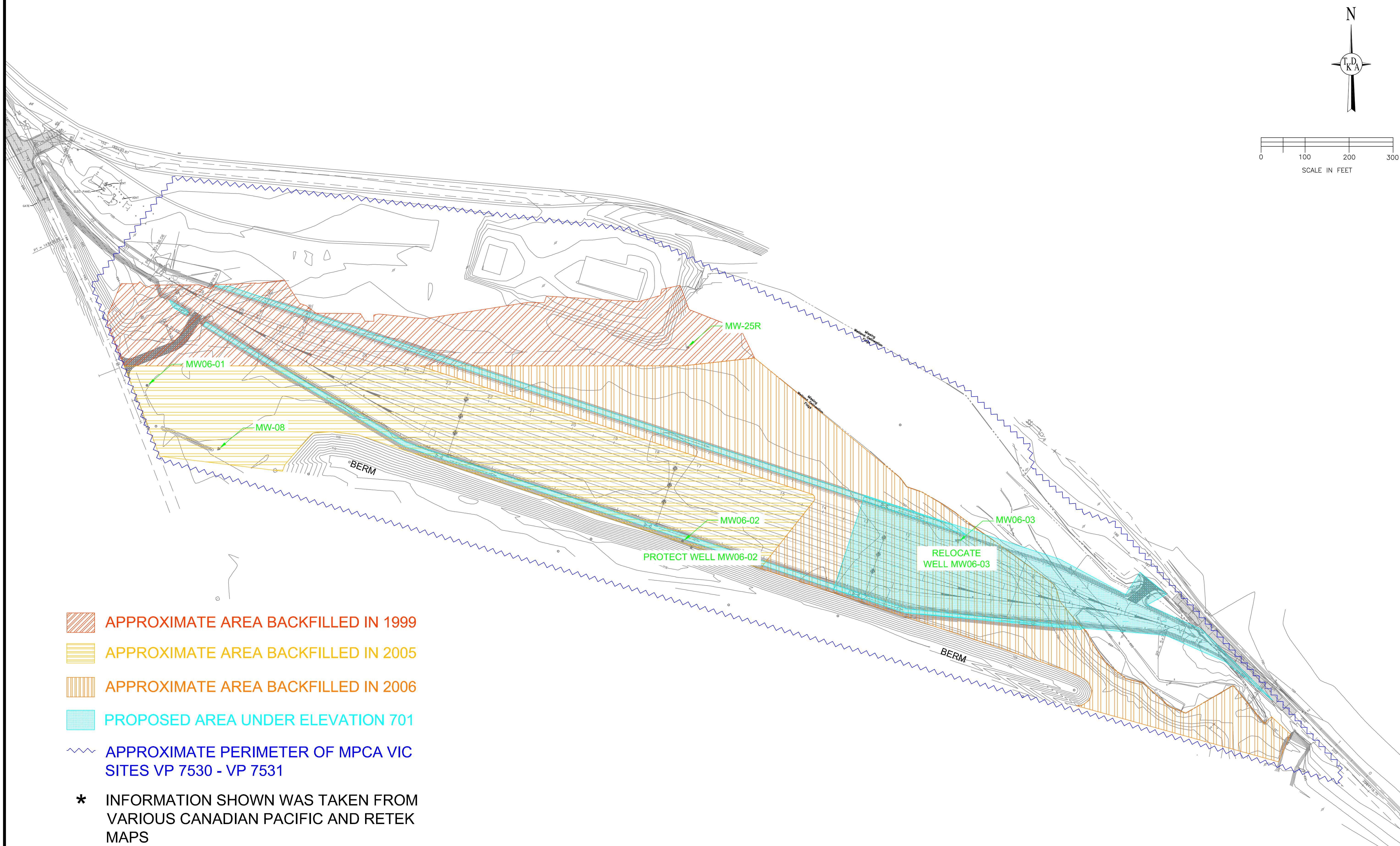
See attached Wetland Replacement Plan

☑ Required site plan is attached

Applicant's Signature Greg Schafer Date 10/31/08 City Agent

Appendix J

Approximate Location of Remediated Areas



APPROXIMATE AREA BACKFILLED IN 1999

APPROXIMATE AREA BACKFILLED IN 2005

APPROXIMATE AREA BACKFILLED IN 2006

PROPOSED AREA UNDER ELEVATION 701

APPROXIMATE PERIMETER OF MPCA VIC SITES VP 7530 - VP 7531

* INFORMATION SHOWN WAS TAKEN FROM VARIOUS CANADIAN PACIFIC AND RETEK MAPS

FIELD BOOK:
Plot Date: 04/08/2008
Drawing name: K:\g-m\MarathonAsh\13518001\Rail\bases\LDD_Marathon-CP\dwg\environmental-CP.dwg
Xrefs:, trackbase

NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK
DRAWN PJW
CHECKED JEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE ______________ LIC. NO. ______________

TKDA
ENGINEERS▪ARCHITECTS▪PLANNERS

MARATHON
MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
ENVIRONMENTAL EXHIBIT

SHEET NO. XX OF XX SHEETS

PROJECT NO.
13518.001

RECORD NO.

Appendix K

City of St Paul Application for Wetland Determination

APPLICATION FOR WETLAND DETERMINATION
Department of Safety and Inspections
200 Commerce Building
8 Fourth St. E
Saint Paul, MN 55101-1024
(651) 266-9099

Zoning office use only
File #
Fee
Tentative Hearing Date
Section
City agent

APPLICANT

Name GREG SCHAFER **Company** MARATHON PETROLEUM CO.
Address 301 ST. PAUL PARK RD
City ST PAUL PARK **St.** MN **Zip** 55071 **Daytime Phone** 651.458.2758
Property Interest of Applicant (owner, contract purchaser, etc) lessee
Name of Owner (if different) CANADIAN PACIFIC RAILWAY **Phone** 612.904.6130

PROPERTY INFORMATION

Address / Location PIG'S EYE LAKE RD, ST. PAUL, MN
Legal Description T28, R22, SW53, SE54, ST. PAUL, RAMSEY CO, MN
(attach additional sheet if necessary)
Lot Size ______ **Present Zoning** I-2 **Present Use** ______
Proposed Use RAIL YARD EXPANSION

X **Request for a Determination of No Loss or Exemption** *(Need to complete the Minnesota Wetland Conservation Act – Application for Certificate of No Loss or Exemption form).**

X **Request to allow fill and replacement of a Wetland** *(Need to complete the Minnesota/State/Federal Application Form for Water/Wetland Projects).**

(Attach all supporting documentation and necessary plans with this application)

CASHIERS USE ONLY

* Minnesota Wetland Conservation Act forms can be found on the MN Board of Water Resources website at:
http://www.bwsr.state.mn.us/index.html

Applicant's Signature Greg Schafer **Date** 10/31/08

Appendix L

RWMWD Permit Application
(Rule D and Rule E)

PERMIT APPLICATION

Return application to:
Ramsey-Washington Metro Watershed District
2665 Noel Drive
Little Canada, MN 55117
Phone: (651) 792-7950
Fax: (651) 792-7951

TO BE COMPLETED BY DISTRICT:
PERMIT NUMBER _____
AMT RECEIVED _____ DATE _____
RECEIVED FROM _____

MARATHON RAIL YARD PROJECT — **Name of Proposed Project**
PIG'S EYE LAKE RD — **Address/Intersection**
ST. PAUL, MN — **City**

14 ACRES — **Acreage to be Graded**
RAIL YARD — **Type of Development**
$500 processing fee + $2500 escrow fee = $ 3,000 — **Total Due with Application**

Rule Applicability (check all that apply):
☐ Rule C – Stormwater Management
☒ Rule D – Flood Control
☒ Rule E – Wetland Management
☐ Rule F – E & S Control
☐ Rule G – Illicit Discharge and Connection

GREG SCHAFER — Name of Applicant (Site Owner or Project Developer)	JIM HOSCHKA — Applicant's Contact (Consulting Engr or Project Rep)
MARATHON PETROLEUM CO. — Organization Name	TKDA — Organization Name
301 ST. PAUL PARK RD — Address	444 CEDAR ST., SUITE 1500 — Address
ST. PAUL PARK, MN 55071 — City, State, Zip	ST. PAUL, MN 55101-2140 — City, State, Zip
651.458.2758 — Phone	651.292.4401 — Phone
651.458.2664 — Fax	651.292.0083 — Fax
grschafer@marathonoil.com — Email	jim.hoschka@tkda.com — Email

The undersigned hereby acknowledges by signing this Permit Application, the undersigned, its agents, assigns and/or representatives (hereinafter "Permittee") shall abide by all the standard conditions and special terms and conditions of the Ramsey-Washington Metro Watershed District Permit.

Any work which violates the terms of the permit may result in the Watershed District issuing a Stop Work Order which shall immediately cause the work on the project relating to the permit to cease and desist.

All work on the project shall cease until the permit conditions are met and approved by the Ramsey-Washington Metro Watershed District staff.

In the event Permittee contests the Stop Work Order issued by the Watershed District, Permittee shall follow the Permit Violation Grievance Procedure, a copy of which is available at the Ramsey-Washington Metro Watershed District office.

Any attorneys' fees, costs or other expenses incurred on behalf of the Watershed District in enforcing the terms of the permit shall be the sole expense of the undersigned. Costs shall be payable from the Permittee's escrow account. If said fees exceed the escrow amount, the Permittee shall have ten (10) days from the date of the receipt of the invoice from the Ramsey-Washington Metro Watershed District to pay for the costs incurred in enforcing the permit, by which to pay the Ramsey-Washington Metro Watershed District for said costs.

The undersigned applicant hereby agrees to be bound by the terms of the final permit, standard conditions and special conditions as may be required by the Watershed District Board for approval of the permit. The undersigned further acknowledges that it has the authority to bind the permit holder, the owner of the property and/or any entity performing work on the property pursuant to the terms of the Ramsey-Washington Metro Watershed District permit, and hereby shall be responsible for complying with the terms of the Ramsey-Washington Metro Watershed District permit.

By Greg Schafer
Permittee

Appendix M

Permit Fee Summary

Permit Fee Description	Fee
RWMWD Processing Fee	$500
RWMWD Escrow Fee for projects proposing wetland alteration and all replacement plans	$2,500
City of St. Paul Wetland Conservation Act Wetland Permit Application Fee	$250
City of St. Paul Conditional Use Permit Fees ($750 for up to 1 acre, $200 for each add'l acre, $180 for site being located in the River Corridor Critical Area); assumes 14 acres	$3,530
Total:	**$6,780**

Mississippi River Critical Area Program map

Critical Area/MNRRA Corridor Map

Note: The corridor boundaries of the Mississippi River Critical Area and MNRRA are the same.

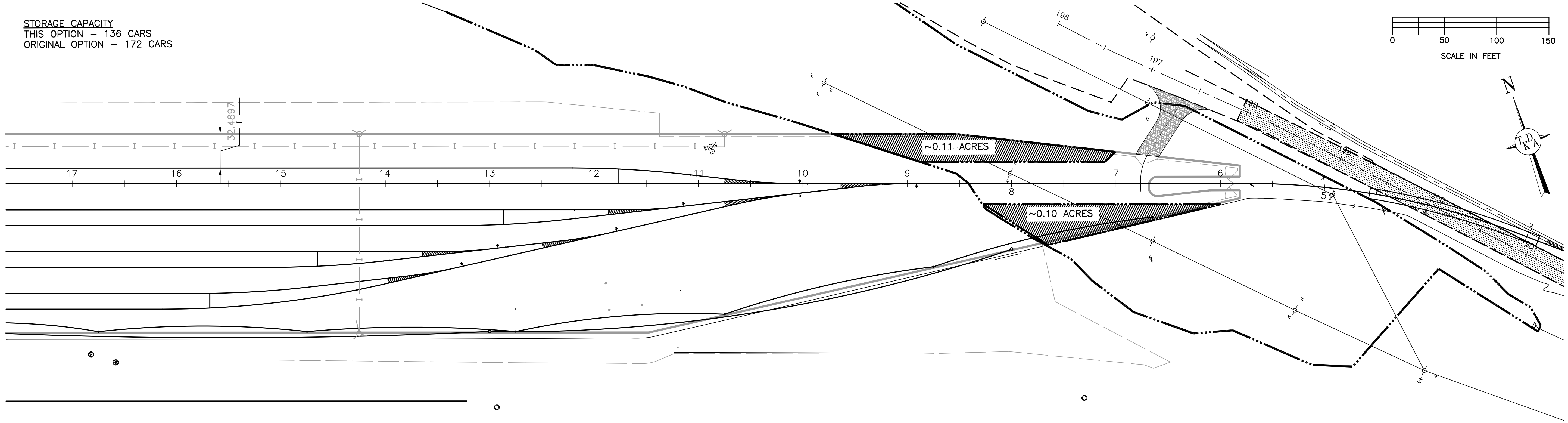
See the **legal description of the Mississippi River Critical Area Corridor** [PDF/32KB] for details.

Questions?
1-888-MINNDNR
651-296-6157 in metro
info@dnr.state.mn.us

Appendix N

Single Track Wetland Crossing Minimization Alternative

STORAGE CAPACITY
THIS OPTION – 136 CARS
ORIGINAL OPTION – 172 CARS



NOTES

1. ALL CSP SHALL BE 12 GUAGE CORRUGATED STEEL PIPE MEETING E–80 LIVE LOADING. REFER TO DETAILS FOR SEWER TRENCH AND BACKFILL REQUIREMENTS.
2. ALL CATCH BASINS SHALL BE 48" PRECAST CONCRETE PER MN/DOT STANDARD PLATE 4005 AND 4006.
3. ALL CASTINGS SHALL BE NEENAH R–2501–HD WITH TYPE C GRATE.
4. ALL APRONS SHALL BE CORRUGATED STEEL PER MN/DOT STANDARD PLATE 3123.
5. INSTALL MN/DOT CLASS II (SPEC. 3601) RIPRAP AT ALL APRONS PER MN/DOT STANDARD PLATE 3134, WITH GEOTEXTILE FABRIC.
6. ALL DISTRUBRED AREAS SHALL BE RE–ESTABLISHED WITH MN/DOT SEED MIXTURE 250 (70 LBS/AC), STRAW BLANKET (CAT. 2), AND 22–5–10 FERTILIZER (350 LBS/AC).
7. ALL FILL SLOPES SHALL HAVE MACHINE SLICED SILT FENCE (MN/DOT SPEC. 2573) INSTALLED AT TOE OF SLOPE.
8. INSTALL FILTER LOG (TYPE STRAW BIOROLL) (MN/DOT SPEC 2573) EVERY 200' IN DITCH BOTTOMS.
9. INSTALL CULVERT MARKER AT ALL APRONS PER MN/DOT STANDARDS PLATE 8150.

12 11 10 9 8 7 6 5 4 3 2 1 0

NO.	DATE	BY	DESCRIPTION OF REVISIONS

DESIGNED TRK DRAWN PJW
CHECKED JEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE ____________ LIC. NO. ____________

TKDA
ENGINEERS▪ARCHITECTS▪PLANNERS

MARATHON PETROLEUM
ST. PAUL PARK, MN

ST PAUL RAIL YARD
EAST YARD LEAD
PLAN AND PROFILE

SHEET NO. 5 OF 17 SHEETS

PROJECT NO. 13518.001
RECORD NO.

FIELD BOOK:
Plot Date: 12/18/2008
Drawing name: K:\g-m\MarathonAsh\13518001\Rail\bases\LDD_Marathon-CP\dwg\alt-east-end.dwg
Xrefs:, trackbase-alt